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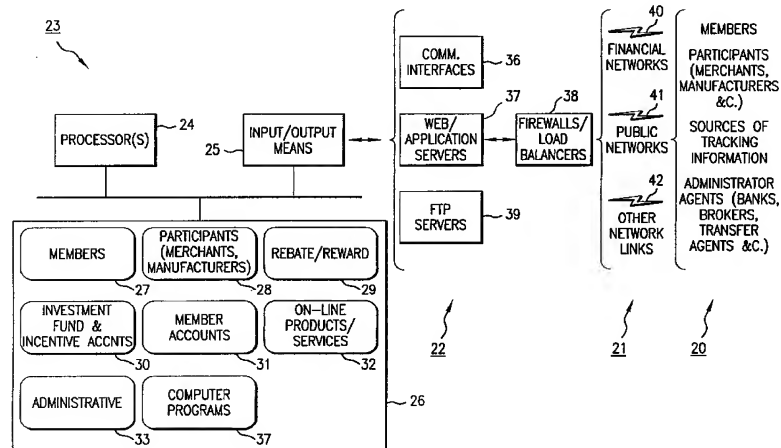
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(54) Title: CUSTOMER LOYALTY PROGRAMS AND SYSTEMS AND METHODS FOR SUCH PROGRAMS



(57) **Abstract:** The invention encompasses a customer loyalty investment program system and method. The invention is used in e-commerce, or in any commerce using an identification (id) card recognizable as a standard payment card and preferably tracks member transactions. Members (27) receive rebates (29) and other incentives (29) sponsored by program participants (51) for transactions involving participants' goods and services (32). The method allocates rebates and other incentives among one or more loyalty vehicles, preferably to a fund that invests in securities of at least one participant. The invention also provides for direct incentives immediately available for use and other incentive vehicles. The system includes a web server, a website (37), a database server with information on members, purchases, participants, incentives and funds for investments, and an input/output means (25). In the credit card embodiment, incentives come from a card issuer and/or other participants. In the id card embodiment, the card's payment functions may be disabled.



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**CUSTOMER LOYALTY PROGRAMS  
AND SYSTEMS AND METHODS FOR SUCH  
PROGRAMS**

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**1. FIELD OF THE INVENTION**

The present invention is directed to customer loyalty programs, and to  
10 systems and methods for such programs, that provide a plurality of loyalty vehicles,  
including for example equity investment programs and current incentives, and that obtain  
member tracking data from a plurality of sources, including for example merchants and  
financial networks, such as payment or credit-card networks. In different embodiments,  
the programs, systems, and methods may be used in e-commerce and in on-line and/or off-  
15 line commerce.

**2. BACKGROUND OF THE INVENTION**

Merchants and credit card companies have developed a number of customer  
award programs in attempts to incentivize customers, for example by enhancing customer  
20 loyalty. Merchants have long offered coupons to customers with the hope that the  
customers will be enticed to purchase a product with the coupon and subsequently develop  
some loyalty to the product or the merchant. More recently, merchants and credit card  
companies have set up programs where customers earn award points through the purchase  
of products or services with a credit card. The award points may then be redeemed  
25 towards other products or services offered by merchants.

As the Internet has gained in popularity as a shopping destination, similar  
customer award programs have been developed. For example, U.S. Patent No. 5,774,870  
describes a fully integrated on-line award program wherein a user earns award points by  
purchasing products on the offering entity's web site. The offering entity keeps track of  
30 these award points, and they may be redeemed by the user to purchase products from an  
on-line award catalog displayed on the offering entity's web site.

Over the years, investment-based customer award programs have also been  
offered to customers. For example, U.S. Patent No. 5,297,026 describes a credit card  
based customer loyalty program wherein the offering entity determines the total amount of  
35 credit card purchases a participating customer has made during a given period, and credits  
an investment account owned by the customer with up to 10% of that total amount. The  
offering entity has complete discretion over how the money allocated to the customer is  
invested. It simply guarantees a percentage return on the investment, or ties the

investment to a published interest rate. The investment is in no way tied to what products  
5 the customers have purchased with the credit card.

Another investment-based customer award program is described in U.S. Patent No. 5,233,514. This patent describes a customer loyalty program wherein customers receive credit towards the purchase of stock in a given company by sending in UPC labels from products that they have purchased from the given company. The entity  
10 collecting the UPC labels authenticates the UPC labels and maintains an account that accumulates the amount of credit the customer has earned. The account is kept such that when a customer has accumulated enough credit to purchase a share of stock in the given company, the entity purchases the share in the name of the customer.

This scheme also has flaws. First, the rebate mechanism is cumbersome for  
15 both the customers and the offering entity. Customers must remember to cut out UPC labels from product packages and mail the labels to the offering entity to receive any credit for their purchases; and the offering entity has to authenticate, scan, and track the UPC labels. At least in cases where the dollar value represented by a single UPC label is low, the cost of maintaining a customer account is likely to be high relative to the value of the  
20 stock accumulating in the customer's account. Moreover, the customer can invest only in the stock of the companies whose products have been bought.

Additionally, these and other existing schemes suffer from inflexible customer incentives. Customers can typically use their rewards, points, or other reward currencies only for purchase of a particular product, or from a fixed product selection, or  
25 for purchases from only a certain merchant or manufacturer, or for investments in only pre-selected equities, or so forth. Once a particular loyalty program has chosen customer incentives, they are usually virtually impossible to change without change of the entire program.

Further, along with the Internet, financial networks that effect consumer  
30 payments and funds transfers have developed at a rapid rate. Once credit card transactions depended on paper receipts and the handling and clearing of these receipts. Now virtually all such transactions are electronically processed at the point and time of sale via payment-card networks. This processing already generates consumer transaction information, and in the future, it is expected that purchase and product details will be available on these  
35 networks. In view of modern financial and payment-card (such as credit card) networks and their expected development, requiring a customer or a merchant to take any but the most minimal actions to identify a transaction to a loyalty program is an anachronism.



5           There thus remains a need for improved customer loyalty programs that are user-friendly, that offer a range of flexible and attractive loyalty vehicles, that are at most minimally intrusive to both merchants and customers, and that are structured to take immediate advantage of current financial and payment-card networks and their further imminent developments.

10           Citation or identification of a reference in this Section or any section of this application shall not be construed that such reference is available as prior art to the present invention.

### 3. SUMMARY OF THE INVENTION

15           The present invention solves these problems in the prior art, and has for its objects the provision of customer loyalty programs that , *inter alia*, includes a flexible range of loyalty vehicles for incentivizing customer loyalty. These loyalty vehicles may range from short-term incentives, such as direct and currently available rebates or rewards, to long-term incentives, such as investments in securities that provide deferred but  
20           accumulating yields. Moreover, the present invention also includes, *inter alia*, a flexible range of methods for tracking transactions of program members at participating merchants or for products or services of participating manufacturers or suppliers. In addition to receiving tracking information directly from the participants, a preferred embodiment may issue credit-card-like cards to program members that are recognized by credit-card point of  
25           sale equipment, and can be processed over credit-card payment networks. When such a card is presented during a member transaction, it automatically causes generation of transaction tracking information transmitted to the loyalty program. In further embodiments, other electronic payment means may be adapted to automatically generate tracking information with virtually no specific member action.

30           Loyalty programs of the present invention may preferably be implemented by an administrative entity, an administrator, that receives information from members, participating merchants and other participants, financial networks, and so forth, and transmits instructions to its agents for carrying out the loyalty program. These agents are economic actors, such as banks, brokers, transfer agents, escrow agents, and so forth.

35           Loyalty programs of the present invention may be preferably performed on network-attached computer systems operated by the administrator. These systems maintain databases of at least member, participant, and transaction information useful for

performing loyalty-program functions, and they compute incentive monies and other  
5 amounts due from participants. They also receive computer messages concerning  
members and participants, transactions, the state of administrator and member accounts,  
and so forth that are used to update stored data. They also transmit messages containing  
instructions, for example, to send and disburse monies, to buy and sell securities, to update  
accounts, and so forth. Generally, these systems perform the methods of this invention  
10 under the control of computer programs, which may be made available on computer-  
readable media.

These and other features of the present invention will be better understood  
after reading the remainder of this application.

#### 15 **4. BRIEF DESCRIPTION OF THE FIGURES**

The present invention may be understood more fully by reference to the  
following detailed description of the preferred embodiment of the present invention,  
illustrative examples of specific embodiments of the invention and the appended figures in  
which:

20 Fig. 1 illustrates a flowchart of loyalty programs according to the present  
invention;

Fig. 2 illustrates an exemplary system for practicing the loyalty programs of  
the present invention;

25 Fig. 3 illustrates in more detail the entities with roles in loyalty programs of  
the present invention and their interactions;

Fig. 4 illustrates an exemplary web page of a member of a loyalty program  
of the present invention; and

Figs. 5A-C illustrate systems and messages in a payment network that  
provides input to the present invention.

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#### **5. DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

This invention is described in more detail herein, where: Section 5.1  
describes loyalty programs in general; Section 5.2 describes methods and systems for  
loyalty programs; Section 5.3 describes sources of data tracking transactions of loyalty-  
35 program members; Section 5.4 describes allocation of member rebates, rewards and other  
incentives to loyalty vehicles present in a loyalty program.

The term "securities" is used herein in its broadest sense to refer to stocks,  
5 bonds and all other instruments of the types regulated in the United States under the  
Securities Act of 1933, 15 U.S.C. § 776 and related acts (*e.g.*, the investment company act,  
investment adviser act, and the like). In other jurisdictions, the term "securities" has a  
similar meaning under the prevailing treaty, legal, or administrative regimes. The term  
"fund for investment" or "investment fund" is used in its broadest sense to refer to an  
10 available amount of money or capital that is committed in order to attempt to gain a  
financial return.

### 5.1. SUMMARY OF LOYALTY PROGRAMS

The present invention provides a wide range of customer loyalty programs  
15 together with computer systems and computer-implemented methods for their  
performance. Generally, loyalty programs are taken herein to mean marketing  
arrangements in which tangible or intangible incentives, such as rebates, points, other  
reward currencies or rewards, are provided to purchasers of goods and services in order to  
induce desired future behaviors, such as repeated purchases from merchants, repeated  
20 purchases of goods and services of merchants, manufacturers or suppliers (referred to, with  
issuing banks below, as program "participants"), repeated use of financial institutions  
(such as banks issuing credit-cards, debit cards, smart cards, payment cards and other  
payment means or devices), increased size of purchase, and so forth.

According to the present invention, loyalty programs are conducted under  
25 supervision of the administrator, which can include one or more administrative sub-  
entities, or other internal arrangements as deemed prudent according to legal and business  
considerations. The administrator provides, creates, invokes, manages or enters into  
contractual or other arrangements, or so forth with other external entities in order that they  
may act as its agents in carrying out the activities necessary for a loyalty program,  
30 including, *inter alia*, registering members and participants, receiving incentives from the  
participants, allocating the incentives to various loyalty vehicles on behalf of the members,  
and so forth.

Persons become loyalty-program members and are able to receive program  
incentives by registering with the program, preferably after agreeing to its terms and  
35 conditions (or reaching agreement with the administrator). Members are typically real  
persons, but may include legal persons of all types. Organizations or individuals  
transacting business with customers become loyalty-program participants and are able to

offer program incentives by also registering, preferably after reaching agreement with the administrator. Loyalty-program participants may include a wide range of individuals or organizations that deal with customers, for example, merchants of goods and services, manufacturers, suppliers or importers of goods, providers of services, financing providers such as credit card companies and banks, or so forth. Loyalty programs of the present invention may, therefore, include either a number of participants of different types (merchants, manufacturers, service providers, and the like), or a single participant (such as a supplier of credit card or other financial services).

When a loyalty-program member completes a transaction at or with a loyalty-program participant or another or involving the product or service of a participant (collectively known as transactions of interest, or commercial interest, to participants), the participant makes agreed-upon incentives available by means of the administrator to the account (or benefit) of the member. The administrator obtains information for determining incentives, allocates determined incentives to various loyalty vehicles, and then causes transfer of the incentives from the participants to the loyalty vehicles for the use of the members. Incentives may be intangible or tangible rebates, points, other reward currencies, rewards, options or so forth, and are often rebate monies or other incentive amounts with or without conditions on their uses. The present invention provides loyalty programs with a broad range of novel methods of obtaining information concerning incentives due from participants by tracking transactions between members and participants and member transactions involving the products or services of participants, and also with a broad range of loyalty vehicles that provide participants with targeted member incentives.

In a further embodiment, the present invention may receive incentive information from participants, or third-parties, and then allocate the incentives among one or more loyalty vehicles. For example, a participant may have immediate access to member (and other customer) transaction information, and may then determine rebates or incentives due members. Information describing the determined incentives may then be forwarded to the administrator, which stores and allocates the incentives, according to participant instructions, or member instructions, or both. In this embodiment, the administrator provides a specialized, shared, and cost-effective interface to members, freeing the participants from individually developing this capability,

In one preferred embodiment, the administrator obtains information tracking member transactions at or with participants directly from the participants

themselves. For example, in embodiments for e-commerce or on-line merchants,  
5 individual member transactions at participants (which, for example have World Wide Web  
(hereinafter, simply "web") sites for their customers) are electronically tracked by use of  
the participants' existing e-commerce or business data processing infrastructure.  
Participants extract member purchase (tracking) information from their infrastructure, and  
transmit it to the administrator, either in real-time or in batches (a batch including, for  
10 example, transactions for an hour, day, week, or other appropriate interval). This  
embodiment may include credit-card loyalty programs, merchant loyalty programs,  
manufacturer or supplier loyalty programs, and so forth. In particular, the cards used in the  
"credit"-card programs may be widely-accepted credit or payment type cards, or may be  
credit or payment type cards accepted at a single merchant or merchant association, or  
15 merchant value-type cards.

In another preferred embodiment, the administrator may issue member  
identification ("id") cards having physical characteristics so that they may be recognized  
by credit-card, payment-card or other point-of-sale ("POS") equipment, and be processed  
over existing financial networks, such as payment-card or credit-card networks. Here,  
20 transaction-tracking data is generated by the financial networks when members present  
their id cards during transactions at participants. Where the id cards have no payment  
functions, payment may be made by conventional means, such as cash, check, regular  
credit card, or so forth. Since this embodiment is able to track transactions at legacy  
"brick-and-mortar" merchants or manufacturers as well as at on-line merchants or  
25 manufacturers, it is referred to herein as an "off-line" embodiment. In sum, this invention  
contemplates obtaining member transaction-tracking information from a variety of  
sources: directly from the participants, from acquiring banks of participants, from issuing  
banks of members, loyalty program member id cards, directly from credit-card and other  
payment-card networks, and so forth.

30 More generally, information for transaction tracking may be provided by  
other identification means or devices. In particular, a member may be identified by a  
unique account number present on a payment or id-card. In the future, such identifying  
account numbers, or other information, may be carried in electronic or digital devices that  
can be read during a transaction. For example, such information may be available on so-  
35 called smart cards, in personal digital devices (such as the well-known Personal Digital  
Assistants), in advanced cell phone (for example, as a telephone number), or on or in other  
circuitry that may be scanned or interrogated during a transaction. In the future, it may be

possible for a personal digital device to take part in a transaction and the point of sale, both  
5 providing payment information (for example, debiting a stored value) and also initiating a  
network transmission to provide transaction tracking information directly to the present  
invention.

In all embodiments, transaction-tracking information preferably includes  
information identifying the goods and services that are part of a transaction, such as by  
10 standard commercial or product codes. With such information, more granular loyalty  
programs can provide, for example, incentives discriminating between or among different  
merchants, between or among different manufacturers or suppliers, between or among  
different merchants at which different manufacturers' or suppliers' goods were purchased,  
and so forth.

Moreover, the present invention provides loyalty programs in which  
incentives, such as rebates, points, other reward currencies or rewards, received by  
members can be allocated between or among various loyalty vehicles in a single loyalty  
program in order to reinforce different member behaviors according to the desires of  
different participants. A preferred loyalty vehicle includes security investments, preferably  
20 investments in or through a fund for investment involving a plurality of securities, more  
preferably where shares issued to members comprise or reflect securities of at least one of  
the participants, which, in one embodiment, are allocated, directly or indirectly, depending  
on net purchases made by members at or with participants or involving the products or  
services of participants (also referred to herein as "transactions of interest"). Such a  
25 loyalty vehicle is expected to incentivize long term loyalty.

Current (or direct) incentives are another type of loyalty vehicle, which may  
be offered along with, for example, security investments in a single loyalty program.  
Current (or direct) incentives may include: freely usable rebate monies; discounts, credits,  
points or other reward currencies freely useable towards future purchases; discounts,  
30 credits, points or other reward currencies targeted towards purchases of particular goods or  
services, or of any goods and services of a particular manufacturer or supplier, or at a  
particular merchant, or of a particular manufacturer or supplier at a particular merchant, or  
so forth.

Carefully targeted current incentives, automatically available to customers  
35 and with low processing costs for merchants and other participants, offer new marketing  
and promotional opportunities. For example, a current incentives vehicle where incentives  
are awarded upon purchase of a particular manufacturer's or supplier's products or

5 services, offers a novel and efficient manner of eliminating cumbersome paper-based  
rebate coupons, which must be individually handled by customers and processed at  
processing centers. Indeed, a loyalty program of the present invention using membership id  
cards that are automatically processed at the point of sale and coupled with the automatic  
identification of purchased products or services makes available the information with  
which to tailor altogether new, efficient, and low cost incentive programs.

10 Therefore, the present invention is attractive to merchants, manufacturers,  
other participants and customers for at least the following reasons:

1. Customers are attracted to the program because it is user-friendly, providing  
simple tracking of their relevant purchases with a minimum of effort on their part,  
15 regardless of the payment instrument used, in preferred embodiments merely by  
purchasing products or services from one or more of the participating merchants or  
manufacturers, and also providing diversified uses for their rebates and other  
incentives, including, in preferred embodiments, equity investments.
2. Further, systems of this invention may provide each member with a customized  
20 web page that tracks the accumulation and application of such member's rebates  
and other incentives, including the performance and composition of any equity  
investments made. This page may also have links to web sites of all merchants or  
other participants, or to those most heavily used by the member. Whenever  
members log onto this system home page, they are reminded of the merchants and  
25 other participants, the good will extended by the participants toward the members,  
and the fact that the members have an interest in using the participants for further  
transactions.
3. Merchants and other participants are attracted to the program because members can  
develop a specific interest in the participating merchants and other participants, for  
30 example via equity ownership through a diversified investment fund. Since  
members may become owners of the merchant or other participant, merchants and  
other participants can thus benefit from a closer relationship with their  
customer/owners. In addition, the long-term approach to investing that is typically  
taken by a mutual fund, for example, can reinforce the participants' relationships  
35 with their customers and can reduce customer attrition.
4. Individual merchants and other participants benefit from the cross marketing  
inherent in the structure or operation of the fund. That is, since the shares issued to

members may comprise or reflect the securities of at least one public participant,  
each member may own not only the merchants at which he shops, but also the  
shares of other public participants.

5. Through programs of this invention, merchants and other participants are able to offer their customers tangible and diverse rewards unlike any others currently available. In a world of competition ever more defined by lowest price, merchants, suppliers and manufacturers are able to reward customer loyalty in an innovative way that will forge a long-lasting relationship based on ownership, partnership, and good will.

This invention includes a single loyalty program combining many member types, participant types, means of obtaining member transaction tracking data, and loyalty vehicles. It also includes programs more targeted to one or a few types of members and participants that obtain tracking data by one or a limited number of means and offer one or a few focused loyalty vehicles. In other words, it is to be understood that the present invention encompasses the various combinations of the means described for transaction-tracking, of the described loyalty vehicles, of the described means for determining incentive and rebates, and of the described means for allocating incentives.

However, without being limiting, the following description is directly primarily to programs with members who are individuals, the programs anticipated to be initially of most importance.

## **5.2. METHODS AND SYSTEMS**

The general functioning of the loyalty programs of the present invention, along with exemplary computer systems, for practicing these methods is now described.

### **5.2.1. LOYALTY PROGRAM METHODS**

Fig. 1 illustrates the general functioning of loyalty programs according to the present invention. First, in step 1, the administrator negotiates registration agreements with merchants, manufacturers, suppliers, financing organizations, other commercial organizations or individuals who seek to become program participants (or with a single program participant). These agreements preferably include schedules and other details of rebates, points, other reward currencies, rewards, or incentives made available to loyalty program members for purchasing or transacting business with a participant or involving



the products or services of a participant, and also schedules for allocating rebates, rewards,  
5 points, other reward currencies or incentives among loyalty vehicles (if more than one)  
offered by the loyalty program. Public or private merchants or both, selling either on-line  
or off-line, or public or private manufacturers, suppliers, service providers, or any of them,  
may become program participants.

Next, in step 3, the administrator registers members. Member registration  
10 collects at least minimal identifying information necessary for legal, security, and  
regulatory purposes, and for simplicity can be performed either on-line, for example, using  
an Internet-attached personal computer, or off-line, for example, by using paper forms. If  
identifying cards ("id" cards), payment cards or other cards, identification means or  
devices are used in a loyalty program, member registration also obtains information  
15 necessary for the banks or other organizations issuing the cards or other identification  
means or devices. The member identifying information carried on the cards or in other  
identification devices is exchanged with their issuers preferably at registration (or  
issuance) time.

In certain embodiments, card (or other member identification devices) are  
20 issued concurrently with new member registration, with by the administrator directly or by  
a bank acting at the request of the administrator. In this case, new member information  
needs to be sufficient to complete the issuance process. An issuing bank, which is  
typically the required issuer if the identification devices are processed by financial  
networks, may, or may not, be a participant in the loyalty program, seeking to incentivize  
25 use of its payment or other financial services. The administrator, if not itself a bank, may  
itself issue identification devices of other sorts.

In other embodiments, a new member may already have an identification  
device, such as a credit card, or a debit card, or a stored-value card, or the like. The device  
may have been issued by a bank or another entity. In these embodiments, new member  
30 registration need obtain the information identifying the member that is available from the  
device or card. With this information, transactions of such members may be tracked by the  
subsequently described methods.

After successful registration, in step 5, as members transact business at  
participants, or involving the products or services of participants, thereby earning rebates,  
35 rewards, points, or other incentive or reward currencies become due them, according to the  
incentive schedules, which are first established at participant registration and can be  
updated from time-to-time by each participant. Alternatively, the participants themselves

may determine incentives from schedules they have internally established. In step 7,  
5 amounts due are determined from these schedules and from information tracking member transactions, and periodically (*e.g.*, in real time, or daily, weekly, monthly, or other periodic interval) requests are made to the participants for transfer of these amounts due. Again, alternatively, participants may make incentive information periodically available for receipt by the system of this invention.

10 Step 9 allocates rebate, reward or other incentive amounts received to various loyalty vehicles according to the initially established (and optionally updated from time –to time) allocation schedules. If no allocation schedules are provided, the amounts due can be allocated according to member request or loyalty-program decision. Alternatively, incentives may be allocated according both to participant instructions and  
15 also to member instructions.

Since in a preferred (but not limiting) embodiment, incentives are allocated at least in part to investments by or through the fund for investment where shares issued to members comprise or reflect the securities of at least one public participant, in step 11, the administrator directs the purchases and sales of investment securities, and may issue and  
20 redeem evidences of, or account for, member ownership interests (for example, shares of a mutual fund). At step 13, members are incentivized by tracking owned investments, selling owned investments, and optionally buying additional investments with separate monies.

In another embodiment, rebate and other incentive amounts may be  
25 allocated to direct incentive programs that members may use for additional transactions. In an exemplary implementation, each member has a direct incentive account, which is updated in step 15 with allocated rebate and other incentive amounts. Members are then incentivized by using in step 17 their direct incentives for further transactions, purchases, upgrades, and so forth.

30 Loyalty program activities as just described are managed and supervised by an administrative entity (simply, an “administrator”), which, although described herein as a single functional entity, may actually consist of two or more legal entities. The administrator acts, *inter alia*, by entering into agreements, such as member and participant registration agreements; by obtaining member transaction tracking information; by  
35 requesting incentive amounts, such as monies and other incentive amounts due; by receiving incentives either as fungible monetary values or as specialized incentive values; by dispensing incentive amounts received, such as allocating monies and other incentive

amounts to loyalty vehicles; by managing loyalty vehicles, such as causing securities to be  
5 bought and sold; and so forth. Since many of the administrator's actions may be actually  
performed by separate agent entities (illustrated in Fig. 3) that provide information to and  
respond to instructions from the administrator, the administrator may manage and  
supervise by monitoring and instructing its agents.

This monitoring and instructing may include: updating information  
10 reflecting accounts held by agents for, *inter alia*, member transactions, rebate monies and  
other incentive amounts, and so forth; formatting messages to agents with, for example,  
instructions to transfer monies or other incentive amounts, to buy or sell securities, to  
determine present values, and so forth; interpreting messages received from agents and  
updating administrator accounts; responding to queries from members and participants;  
15 and so forth. In a preferred embodiment, most of these actions are preferably performed  
by administrative computer systems (illustrated in Fig.2) that electronically communicate  
with the agent entities, for example, with the computer systems of these other entities.

### 5.2.2. LOYALTY PROGRAM ADMINISTRATION

20 Fig. 3 illustrates, in a preferred (and non limiting) embodiment, the  
administrator, the entities responsive to (agents of) the administrator for performing  
loyalty programs of this invention, and the interactions (exchange of information,  
instructions, value, and so forth) between the administrator and its agents. Although in  
other legal or regulatory contexts, the agents of the administrator may be fewer or more  
25 numerous, their combined functioning will be substantially equivalent to the preferred  
embodiment described next.

Administrator 52 negotiates 53 contracts with participant(s) 51, which  
reflect agreement that the participant will provide a scheduled incentive amount (for  
example, a percentage) of the purchase price of products or services bought or used (or  
30 other measure of transaction value) by members of the loyalty program, and that the  
administrator will allocate the rebate, incentive currency or reward as specified by the  
participant (or by the member), for example, by investing in a diversified mutual fund  
which may purchase shares, *inter alia*, in the publicly-traded securities of at least one  
participant. The incentive amounts and their allocation may depend on the type of  
35 product, the merchant, the manufacturer, the supplier, the card issuer or other parameters  
of the member transaction. Both incentive amount and allocation may be updated from  
time-to-time by the participant.

These contracts may also preferably include: provisions that the participant  
5 agrees to pay the administrator a fee for the administrator's services in establishing and  
operating the loyalty program; provisions concerning the mechanics of tracking,  
calculating, requesting and turning over the incentive amounts and rebate monies to the  
administrator; and so forth. Provisions relating to web site content may also be included;  
for example, mutual hyperlinks between the participant's web site and the loyalty  
10 program's web site, a statement on the participant's web site that it is a (merchant,  
manufacturer, supplier, financier, or other type of organization) participant in the system,  
and/or a statement on the participant's web site listing the rebate or incentive schedules  
offered to loyalty program members, similar statements on the program's web site, and so  
forth.

15 The schedule of incentives, rebates, and rewards in a simple embodiment  
includes percentages (perhaps, sliding percentages) of the purchase price of products or  
services bought or used by members of the loyalty program that will be provided as a  
rebate or other incentive. In further embodiments where adequate tracking data is made  
available, the rebate or other incentive may depend on which merchant locations are used,  
20 or on which manufacturer's or supplier's products (or financial products) or services are  
used, or on combinations of these and other factors. Rebates and other incentives may also  
depend on the total amount or on the total number of products in a transaction so that the  
participant may provide volume discounts. Further, if the loyalty program member also  
belongs to another group favored (or disfavored) by a participant, the rebate or other  
25 incentive may be increased (or decreased). For example, if the loyalty program maintains  
histories of member transactions, a favored group might be a member who frequently  
transacts business at a participant or involving the products or services of a participant.  
Rebates or rewards may also depend on further factors to achieve particular marketing  
objectives of participants.

30 In addition, numerous types of incentives may be offered by a program. In  
a simple embodiment, an incentive may be an amount of rebate money or other incentive  
that is freely useable by a participant. Alternatively, uses of rebate money or other  
incentives may be restricted to certain merchants, or certain products or services, or  
certain products or services and certain merchants, or so forth. Generally, usage  
35 restrictions may be represented in the systems of this invention by rules provided by  
participants. Also, incentives may be "currencies" not convertible into money, including  
for example, merchant "points", coupon values, airline miles, and so forth. Allowed usage

of such "currencies" is usually strictly limited, often requiring specific authorization by a participant for a proposed use.

Administrator 52 also registers 54 potential members 50 prior to their use of the loyalty system. During registration, which can be easily accomplished with on-line forms available on the administrator's web site, potential members assent to preferably pre-defined program terms and conditions, and provide certain personal, demographic, and system-related information. This information may include name, password, social security number, address, gender, age, employer, e-mail address, and so forth. Potential members may also be requested to supply the details for id cards, such as social security number and income, sample signatures, or other information typically required to open a new credit/debit card account with an issuing bank. If members will use their existing payment cards for program purchases, they may be asked to supply payment card details such as: member name as it appears on the payment card; type and brand of payment card (*e.g.*, debit or credit; Visa, MasterCard, Discover, American Express, or so forth); and the payment card number. Payment card transaction information is one way by which the administrator may track member purchases at participants 51, and to subsequently request rebate monies or other incentive amounts due.

If equity investments 63 are available incentive vehicles, member registration may also provide user-friendly forms for opening a securities account for the purchase, sale, transfer, and ownership of securities. Via the securities registration forms, members may also provide administrator 52 (or member agents 55) with standing instructions to receive rebate monies and other incentives earned by the member and invest such rebate monies and other incentives (after any necessary redemption for cash) in specified manners, for example, in or through a fund for investment that may purchase the publicly traded securities of at least one participant. When practiced in the United States, these funds can be mutual funds registered under the Investment Company Act of 1940, as amended, and the Securities Act of 1933, as amended, 15 U.S.C. 78a *et seq.*, respectively.

In the event the U.S. Securities and Exchange Commission (SEC), or other government agency or law, requires separating management relating to a fund for investment from other aspects of incentive and program management, the administrator may employ the services of one or more member agents 55 to receive rebate monies and other incentive amounts 58 from participants on behalf of members, and to invest such rebate monies and other incentive amounts (less any fee that may be charged by the administrator and agent) in or through the fund, perhaps by forwarding such rebate monies

and other incentive amounts to administrator 52 or to escrow or other administrative  
5 account 56. When practiced in the United States, member agents will be registered  
securities broker/dealers. If member agents are used, the program registration process may  
also obtain information for opening an account with member agents, and for any standing  
instructions 60 to be submitted to the agents to receive the rebate monies and other  
incentive amounts, and to invest the rebate monies and other incentive amounts in or  
10 through the fund (or otherwise invest in securities), or to forward such monies and other  
incentive amounts to the administrator of the fund or into escrow or other administrative  
account 56 for eventual investment. After opening an account and submitting standing  
investment instructions, a member may have a reduced need for further interaction with  
the member agent.

15 After registration is successful, members preferably receive highly secure  
personal identifiers, such as passwords, certificates, or other secure identifiers, that provide  
access to member account statements and other account information through the  
administrator web site. To obtain this information, which is preferably formatted as  
personal member "home" pages, members navigate to the administrator's web site and  
20 enter their security identifiers.

Generally, home-pages (and dependent pages) display information on  
progress in the loyalty program in a manner that will incentivize members in the ways  
sought by the various participants. Promotional offers, advertisements, and other  
information, from both participants and the administrator, may also be provided on the  
25 member web page. If direct incentives, as explained below, are available, a page may  
display total direct incentives of each type received, how these incentives have been used,  
the benefits gained, and the current status of all available direct incentives. This latter  
information may include, for example, that further purchases of a certain product from a  
participating manufacturer or supplier will be discounted for up to a certain amount, or on  
30 the next purchase for over \$100 at a certain merchant an extra \$10 will be available to the  
member, or so forth.

Fig. 4 illustrates in more detail an exemplary member home page for equity  
mutual fund investments. The illustrated page includes: a chart of mutual fund  
performance versus various benchmarks 400; summary information on the fund 402;  
35 summary information on the member's holdings in the fund 405; information on credits  
410 that the member has received towards the purchase of shares in the fund as a result of  
transactions with participants or involving the products or services of participants;

hyperlinks to merchant web sites 415; a button or similar mechanism 420 to access further  
5 information concerning the member's account; a button or similar mechanism 425 to make  
direct investments in the fund; a button or similar mechanism to access a hypothetical  
calculator allowing the member to approximate a future account value based on possible  
future incentives (*e.g.*, the member is able to enter in an incentive value of \$500 per year,  
and calculate the "hypothetical value" of his fund holding in 5 years, 20 years, etc. based  
10 on fund performance since inception); a button or similar mechanism 435 to redeem  
shares; and a button or similar mechanism 440 that provides access to more information  
concerning the fund.

Returning to Fig. 3, after member and participant registration, members 50  
may carry out transactions 57 with participants or others 51. Commonly, transactions may  
15 be purchases of goods or services at participating merchants or purchases of goods or  
services of participating manufacturers, suppliers or service providers, use of credit or  
other financial services from participating financial institutions, or use of an issuing  
institution's credit or other card. Advantageously, member transactions may be performed  
over the web (or in other on-line manners), and hyperlinks to participant web sites may be  
20 provided at several different locations in the administrator web site, *e.g.*, in member  
registration forms; in a page listing the merchants or other participants; in the member's  
home-page; or in other locations. These hyperlinks may be continually updated by  
administrator 52 to include new participants as the program expands. Therefore, in one  
preferred embodiment, members first access the administrator's web site, and use its  
25 hyperlinks as a portal to participant web sites to carry out transactions. As will be  
described below, use of the administrator's web site as a portal may provide for tracking of  
a member's transactions at a participant (and determining rebate and other incentive  
information by the administrator system). Alternatively, member may directly access  
merchant web sites, without first navigating to the administrator's web site. In this case,  
30 the participant can collect and send member transaction information to the administrator  
(either in real time or in periodic batches). In another preferred embodiment, members are  
provided with id cards, or combined payment and id cards, that automatically provide  
tracking information to the administrator when processed by existing credit-card networks  
(or other payment-card or financial networks). The present invention is also applicable to  
35 other tracking mechanisms as will be described below.

After members have transacted business with participant or business  
involving the products or services of participants, rebate and reward monies 58 (or the

indications of values of points or other reward “currencies”) are forwarded by participants

5 51. Monies and other incentive amounts may be forwarded by the participants without administrator request, as a result of participants’ own tracking of member transactions, or preferably at administrator request, as a result of administrator tracking some or all member transactions. Forwarded monies and other incentive amounts are received directly by the administrator 52, or preferably by segregated escrow or other administrative

10 accounts 56 for the benefit of members. Segregated accounts are preferred to provide heightened program security, and therefore increased attractiveness to members. The escrow or other administrative accounts may be managed at an agent bank; the account may be an account where the administrator receives interest on the deposited rebates and other incentive amounts. Where member agents 55 are employed, participants 51 forward

15 rebate or reward monies 58 (or the indications of values of points or other reward “currencies”) to these member agents, which, acting according to standing member instructions, either forward the monies and other incentive amounts 59 on to administrator 52 or on to escrow or other administrative account 56, or directly invest the monies and other incentive amounts (not illustrated). The members have the option of updating 60

20 their standing instructions to their agents. Member agents are optional if the administrator can act as the member agent.

Rebate monies and other incentive amounts are held in the escrow or other administrative accounts until they are allocated to loyalty vehicles according to the member preferences and instructions. Fig. 3 illustrates two preferred loyalty vehicles,

25 equity investments 63, particularly equity investments in or through a fund where shares issued to members comprise or reflect the publicly traded securities of at least one participant, and current incentive programs 62. Administrator 52 manages the allocation 73 of rebate and reward monies and incentive amounts (or the indications of values of points or other reward “currencies”) among the various loyalty vehicles, and also provides

30 necessary administrative instructions, direction and control of the various loyalty vehicles by interaction 64.

For the equity investment vehicle, agents of the administrator, such as transfer agents and brokers, transfer rebate monies and other incentive amounts, purchase shares and securities, receive purchased shares and securities, and perform or execute

35 corresponding transfers or sales upon share redemption or disposition, preferably as book entries without physical transfer of money, checks, or certificates, except for settlement purposes. The administrator manages and directs these agents, and keeps internal



information reflecting account status at its agents. Transfer or other agents preferably  
5 administer funds, transfer monies and record purchases or sales of shares 67 for the  
members under the direction of the administrator; brokers (if different), also under the  
direction of the administrator, preferably purchase and sell securities, particularly  
participant securities, on stock exchanges and in other public markets 65 for transfer 66 to  
and from the investments and funds 63. If appropriate, transfer agents and brokers may be  
10 affiliated, or the administrator may itself perform one or both of these functions. The  
dollar value of the shares equals the dollar value of the rebates and other incentive  
amounts (preferably less any fee that may be charged by the administrator and as adjusted  
by direct sales and purchases) that each member received on his online purchase of  
products or services from or of the participants. Also, members may make investment  
15 requests 68, which are processed by the administrator and result in updates to a member's  
investments in the loyalty program and directions to the transfer agents and brokers.  
Members communicate, for example by on-line messages, to direct the administrator, and  
thus the transfer agent and/or broker, to process such share purchase and redemption or  
sale forms by buying or redeeming or selling shares and transferring proceeds 67 to the  
20 requesting member. Electronic confirmations are preferably provided to each member by  
the administrator system, for example, on members' web pages and also by e-mail.

Current incentives 62 are monies, discounts, incentives, points and other  
reward currencies available for a member's immediate use, whether or not first redeemable  
for or converted into cash. Optionally, uses of current incentives may be limited by the  
25 participants in ways to incentivize desired member behaviors. Member current incentives  
may be, preferably, held in member escrow accounts 72 with a banking-type institution  
acting as an agent of the administrator (or with a financial transaction processor for a  
banking-type institutional agent). Member escrow accounts 72 are available for settling  
member transactions 70 (optionally, according to the limitations of the participants) in a  
30 manner similar to stored-value cards or debit cards. Transfer of monies and credits in and  
out of these accounts is preferably handled, as in the case of equity investments, as book  
entries without the physical transfers. Specifically, under the administrator's direction and  
management, banking-type institutional agents receive rebates, rewards, points and other  
reward currencies allocated from escrow or other administrative account 56 to current  
35 incentives 62, and then place received rewards, points and other reward currencies 71 in  
accounts 72 for member use.

Directions from the participants for use of their direct incentives may be, preferably, represented in the systems of this invention as rules limiting how accounts may be used for transaction settlement. For example, rules may specify how, where, for what, and so forth payment requests would be honored (either when transmitted in real-time from the point of sale or during batch processing). If honored, a specified incentive amount will be transferred in payment, and the current incentive available correspondingly reduced; if not honored, the payment request would be declined. Paying and declining payment requests are known functions of payment networks, such as the networks maintained by credit card associations. These rules may be physically stored in association with member incentive accounts so that they would be available during the processing of payment requests. Further, it is preferable that the rules associated with these current incentive accounts could be updated by administrator 52 in response to directions from the participants.

### 5.2.3. ADMINISTRATIVE SYSTEMS

Routine functions of the administrator are typically performed by programmed computer systems referred to herein as “administrative computer systems” or simply “administrative systems”. Discretionary functions, such as negotiating agreements with potential participants, are typically performed by the operators of the administrative computer systems.

Core functions of the administrative computer systems include: receiving or obtaining information tracking member transactions at participants; requesting monies, rebates, rewards, points and incentives from participants depending on the tracked member transactions and on the participant rebate and incentive schedules; allocating and dispensing these monies and other incentive amounts to various loyalty program vehicles, and managing the loyalty program vehicles. Other administrative system activities include managing and directing both member agents in handling member rebate monies and other incentive amounts, and also the administrator’s own agents which handle, *inter alia*, escrow accounts, current incentive accounts, equity investment accounts (and other loyalty vehicle accounts). Also, the administrative computer systems participate in registering participants and members, and receive and respond to queries and directions from participants and members.

These functions in preferred embodiment involve extensive electronic communication with external computer systems, such as systems of, *inter alia*,

participants, members, banks, payment processors, transfer agents, brokers, and so forth.

5 If id or payment cards are used in a program, the administrative computer systems also preferably electronically communicate directly with payment network systems or their gateway systems. Communication may be in a transaction mode, a batch mode, or other convenient communication mode. Where external systems generate member transaction tracking information throughout the day, administrative computer systems may receive

10 tracking information on a transaction by transaction basis, or the tracking information may be transmitted in batches hourly, daily, or with other convenient periodicity. For example payment networks, such as credit-card networks, may send member transaction tracking messages in real-time during each transaction. Other external systems, for example, those of merchants, may generate transaction-tracking information only during periodic batch

15 processing cycles, for example, during nightly processing, after which it can be sent to the administrative system in batches (that is, aggregating the transaction data). For agents of the administrator, usually only periodic communication is required (*e.g.*, hourly, daily, weekly, and so forth) to transfer, for example, instructions on daily securities transactions, on transfer of rebate monies and other incentive amounts, or on maintenance of escrow or

20 other administrative accounts. The latter communications may be advantageously structured as file transfers, the files containing net results and net instructions for the period. Administrative systems respond to these electronic communications by updating system databases and, possibly, generating and transmitting further instructions and responses to the external systems.

25 Fig. 2 illustrates exemplary administrative computer systems 22 and 23 (the “administrative systems”) for implementing the loyalty programs of the present invention. Generally, system users 20, for example, members, participants, agents, and so forth, interact with (provide information to, receive direction from, and so forth) loyalty programs by means of networks 21 and interface systems 22 that communication with

30 systems 23, that have databases 26 that store loyalty program data and processors 24 that are controlled by computer programs to perform the methods of the loyalty programs. The administrative systems 22 and 23 operate under the supervision of administrator 52 (Fig. 3), which is responsible for the loyalty programs. Although, as Fig. 2 illustrates, any class of user can communicate via any convenient means of communication, certain

35 communication means are typically used by certain users. Members, who typically use PC-type computers at their remote locations, may access loyalty programs of this invention via public networks 41 connected to one or more web servers 37, which are suitably

protected by firewalls and controlled by load balancers 38. Participants and participant  
5 systems, *i.e.*, commerce systems at merchants, manufacturers or suppliers, may access the  
loyalty programs over public networks 41 or through other, perhaps private, network links  
42, such as dedicated communication lines. Public networks 41, of course, include the  
Internet, but also may include various proprietary public network backbones. Other  
networks 42 may include private networks or private specific point-to-point or switched  
10 links, and may access the administrative systems through other communication interfaces  
36.

The administrative systems communicate with external systems to obtain  
member transaction tracking data. In one preferred embodiment, member-tracking data  
may be transmitted from participants' computer systems using one or more of the above  
15 communication methods. In another preferred embodiment, tracking data is extracted by  
financial payment-processing networks 40 and sent to the administrative systems  
(optionally, transaction-by-transaction). Financial payment networks include especially  
those operated by credit card associations, such as VISA, MasterCard, American Express,  
and so forth.

20 The administrative systems allocate member rebates/rewards and so forth to  
loyalty program incentive vehicles by means of communications with computer systems of  
the administrator's agents. In the case of equity investments, these may be systems of  
financial intermediaries, security brokers, transfer agents, separate member agents (if  
needed, for example, for regulatory compliance), and so forth. These communications  
25 (instructions and responses) may be transmitted as files using, for example, the FTP  
protocol via FTP servers 39. In the case of direct incentive loyalty programs,  
communications may be with banking-type institutions that maintain the direct incentive  
accounts, and are usually performed by means of FTP transfers between FTP servers.  
These communications are used to create accounts, to credit and debit accounts, to inquire  
30 about account status, and so forth. Other intermediaries, including credit card processors,  
merchant banks, and so forth, may communicate with the administrative system via public  
and private networks, in files transferred by FTP, transaction by transaction, or by other  
means.

In more detail, web servers 37 implement one or more administrator web  
35 sites for members (and participants and others), which are accessible via the Internet  
preferably only through firewalls 38. If system loads require more than one web server,  
load balancers 38 provide balancing between individual web servers. Application servers

37 may optionally assist in transferring formatted information between the web servers and  
5 one or more database servers 23. Additional firewalls internal to the administrative  
systems may be provided as needed for security.

The one or more database servers 23 preferably are programmed general-  
purpose computers that include one or more processors 24 with processor-accessible  
memory (such as RAM), long-term database memory 26 (such as magnetic disk drives  
10 configured by a database system), and input/output means 25. The input/output means are  
used, among other tasks, to exchange information between database servers 23 and the  
communication systems 22 that connect to external communications. Database memory  
26, *i.e.*, configured computer disk storage, stores formatted and encoded items of  
information used to process the programs of this invention, including information  
15 concerning, *inter alia*, members 27, participants 28, purchases, rebates, rewards and other  
incentives 29, investments, funds and direct incentive accounts 30, member accounts 31,  
and on-line financial products/services 32, administrative information, such as payment  
card issuers 33, and computer programs 34 for causing processors 24 to perform the  
methods of the implemented loyalty programs. More than one database server may be  
20 provided if needed for load sharing or reliability.

Stored member information 27 preferably includes for each member: name,  
address, e-mail address, copy of authorized signature, unique member identification such  
as a system identification number, a secure personal identifier such as a password for  
accessing the system web site, credit card information, social security number, preferences  
25 for allocating rebates, rewards and other incentives, and other information extracted from  
the member's completed registration form, and so forth. Upon submitting the registration  
form, the database server 23 creates in the member database 27 records for the new  
member, extracts the information from the registration form, and preferably assigns a  
system identification number to the member. Membership registration is advantageously  
30 automated to the extent possible by the systems of this invention operating under the  
supervision of the administrator. Member information may be updated upon member  
request, such as requests made through the administrator web site or automatically  
through, for example, credit reports.

Stored participant information 28 preferably includes for each merchant,  
35 manufacturer, supplier, service provider, financial intermediary (such as a credit card  
issuer) and so forth that has agreed to provide rebates or other incentives to members of  
the program: unique identification such as a system identification number, rebate, reward,

discount or other incentive schedules that the participant has agreed to provide to members, limitations on use of direct incentives, rewards, points, other reward currencies or discounts awarded to member purchasers, instructions for requesting and obtaining rebate monies and other incentive amounts, and so forth. Participant registration is also advantageously automated to the extent possible using information provided at participant registration and updated on participant request.

Stored purchase/rebate and other incentive information 29 preferably includes information, for each member, concerning purchases made at merchants or manufacturers or involving the products or services of participants, use of financing services, such as credit cards, of financial institutions participating in the loyalty program, and other participant transactions. Tracking information received by the administrator that includes at least total transaction amounts of members is used to compute and update this rebate and incentive information according to the rebate and incentive schedules of the participants. This information also preferably includes, for each participant, rebate monies, points, other reward currencies, rewards, other incentives or other incentive amounts that are due from or have already been received. This latter information is updated upon transmission of administrator requests for monies and other incentive amounts and upon receipt of information concerning monies and other incentive amounts received by member agents, by the escrow or other administrative account, or directly by the administrator.

Stored fund and incentive database information 30 preferably includes information relating to the investment(s) or fund(s) offered, in a preferred embodiment, for allocation of member rebates to a mutual fund, including fund holdings of the publicly traded securities of at least one participant, fund ownership by members, past and present fund performance, and so forth. This information may also include other investment vehicles, such as individual securities, non-equity securities or security funds, or so forth, and ownership by members. In view of, for example, the current portfolio or security holdings and recently received rebates and other incentive amounts, the administrative system transmits instructions, for example, in files transferred by FTP, to the computer systems of its agents to make security purchases or sales. Share purchases are confirmed to administrative systems, for example also via FTP server 39, by electronic messages that are then used to access and to automatically update the stored investment or fund information 30 to reflect the new portfolio composition and ownership by members.

In the case of direct incentive loyalty vehicles, the administrative system  
5 transmits instructions to its banking agents holding rebate funds and other incentive  
amounts (for example escrow or other administrative account 56) to transfer funds or  
amounts to member incentive accounts, and receives messages confirming completion of  
its instructions. These instructions and confirmations may be in files transferred by FTP,  
or may be in formats appropriate to interbank transfer networks, or may be transferred  
10 transaction-by-transaction.

Stored member account information 31 preferably includes information  
about the composition of a member's rebates, points, other reward currencies, rewards,  
discounts or other incentives that are due from participants or that have already been  
received, and the composition of outstanding fund or other investment ownership and  
15 currently-available direct incentive accounts. It may also retain a history of the member's  
past transactions at or with participants or involving the products or services of  
participants and a history of benefits received from the loyalty program. This information  
is updated along with rebate/reward and other incentive information and  
investment/incentive information using input from the same sources. It is queried in  
20 response to, for example, requests for on-line information by members who have accessed  
the administrator web sites. Optionally, this information can be combined with member  
information 27.

Products/services information 32 preferably includes other financial or non-  
financial products or services that may be offered to members at the loyalty program web  
25 site.

Administrative information 33 preferably includes necessary information to  
operate the administrative systems, such as system configuration, preferred networks and  
protocols for communicating with various agents and intermediaries, help information for  
customer service representatives and members, and so forth. This information is updated  
30 when configuration changes, typically under the direct control of system operators.  
Administrative information may also include monies and other incentive amounts  
available in the various accounts controlled by the administrator, such as the escrow  
account.

These computation and communication activities of the administrative  
35 computer systems are preferably implemented as computer programs 34 written in a  
computer language, such as C, C++ or Java. Programs are translated into machine  
instructions, and are stored in long-term memory until needed by the processor, when they

are loaded into computer-accessible memory for causing the loyalty program methods of  
5 this invention to be performed. If the programs are interpreted, their execution as machine  
language instructions is usually deferred until needed by the processor. These programs  
may initially be distributed to the administrative systems on computer readable media of  
any sort, for example on magnetic disks or tapes, optical disks, or across a network  
connection, such as from an internet server. These media store these computer programs  
10 in a suitable encoded form.

The databases of the systems of this invention can be organized as known  
in the art. For example, it is preferable for them to be implemented as relational databases  
by using commercially available relational database systems, such as those from Oracle  
Corp. or Sybase, Inc. System databases can alternately be implemented by other database  
15 systems, or even as files provided by a file system.

It is to be understood that Fig. 2 and the above discussion describes an  
exemplary system of the present invention. This invention is not limited to such a system,  
but includes systems of other architectures implementing similar communications and  
computational activities that are known to those of skill in the art.

20

### **5.3. SOURCES OF MEMBER TRACKING DATA**

This section describes various methods for obtaining data tracking member  
transactions at or with participants or involving the products or services of participants  
necessary in order to accomplish the loyalty programs of the present invention.  
25 Advantageous methods are those that can tap into existing financial data and financial data  
communications with a minimum disruption to existing commercial computer systems.  
As those skilled in the art will recognize in view of the following description, certain  
tracking methods may be more or less preferable depending on the nature of the members  
and participants in a particular loyalty program. Also, it will be recognized that the present  
30 invention is not limited to the tracking methods described herein, but can readily be  
practiced with other tracking methods that obtain substantially the same information.

Tracking information may be transmitted to communication interface  
systems 22 in various manners. For example, where the data is periodically obtained by  
participants, an appropriate method may be periodic (*e.g.*, daily, weekly, or so forth)  
35 transmission of a batch of member transactions by known means and employing normal  
business security considerations. Such transmission may be via public, private, or  
switched communication networks using transport protocols such as FTP and so forth.



Where the data is transmitted from financial payment networks, messages may be  
5 transmitted transaction-by-transaction from a financial network gateway or interface.

Received tracking data is used by database servers 23 to automatically  
update rebate/reward and other incentive database information 29 and possibly member  
accounts 31. Stored rebate/reward and other incentive database 29 as well as member  
database 27 would be updated to reflect member purchases, and by extension, rebates,  
10 rewards, points, credits and other incentives earned; participant database 28 may be  
updated to reflect the rebate monies and other incentive amounts owed by the participants  
to the administrator and to members. Specifically, the information is updated to reflect  
each individual member's purchases and the rebates, rewards, points, credits and other  
incentives earned based on those purchases, and to reflect the purchases made at or with a  
15 participant or involving the products or services of a participant and thus the rebate monies  
owed to the administrator by the participant(s). Rebate and incentive amounts are  
computed by processors 24 in view of the stored participant rebate/reward and incentive  
schedules.

Rebate monies and incentive amounts are then electronically requested  
20 from participants, and transferred, for example, by clearinghouse networks or wire  
transfers to administrator or agent accounts with banking or financial intermediaries.  
Transferred rebate monies and incentive amounts are held, as described, in escrow or other  
administrative account 56 (Fig. 3), perhaps in the name of a third-party escrow agent. If  
permitted by law or regulation, these monies and incentive amounts may be held directly  
25 in administrator accounts. Messages confirming successful transfer are preferably  
messages transmitted to the administrative systems. (Alternately, these systems may  
monitor transfers by periodic account inquiries.)

After rebates, points, other reward currencies and rewards have been  
transferred, they are allocated to loyalty vehicles according to member allocation  
30 instructions (or by default). These instructions are evaluated by computer systems 23.  
Allocated monies and incentive amounts are then transferred to, for example, equity or  
current incentive accounts from escrow or other administrative accounts. All money and  
incentive amount requests and transfers are preferably performed by electronic  
communication using existing payment or financial networks, if possible.

35 Next, member transaction tracking is described.

### **5.3.1. MERCHANTS/MANUFACTURERS/OTHER PARTICIPANTS**

In one embodiment, participating merchants, manufacturers or other  
5 participants may identify member transactions from their financial systems by collecting  
data identifying, *inter alia*, the member, the amount of the transaction, optionally the type  
and contents of the transaction, and so forth. This data is then transmitted to the  
administrative systems, either on a transaction-by-transaction basis or in periodic files  
aggregating the transactions during the prior period. For concreteness but without  
10 limitation, this embodiment is first described in the case where members make purchases  
at on-line merchants.

First, members may access the loyalty-program web site (operated by the  
administrator or its affiliates and implemented on the administrative systems), and, using  
hyperlinks, may further access any of the various participating merchants that are listed on  
15 the loyalty-program web site. The administrative systems then transmit a loyalty-program  
identifier tag to the merchant database server that identifies the transaction at the merchant  
web site as involving a program member. The identifier tag is stored by the merchant  
database server along with the transaction information. Next, on some periodic basis, the  
merchant may query its database server to retrieve all transactions that include program  
20 identifier tags in order to build a file that preferably includes the total rebate or other  
incentive amount owed to the administrator for that period along with its breakdown  
among the members. This file would be transmitted to administrative systems 22 and 23  
(Fig. 2), by, for example, using the FTP protocol and accessing FTP servers 39.

Other identifying methods may be used in this case. For example, the  
25 member may be assigned a special e-mail address at the administrative system, which is a  
requested input when making purchases at on-line merchant web sites. The merchant  
systems may then transmit the details of the purchase to the member's special e-mail  
address for use as described above by the administrator or the administrative systems.  
Rebate monies and other incentive amounts can be automatically forwarded at the time of  
30 the transaction, or alternatively, be forwarded only on instructions from the administrative  
systems to transfer rebates and/or other incentive amounts.

In a further example, the administrative system web servers 37 may be  
configured such that when a member clicks on a merchant on the administrator's or its  
affiliate's web site, a web page co-branded between the administrator and the merchant is  
35 transmitted. Such web pages can be physically stored on the administrator web servers or  
the merchant's web server. In the case where the administrator web server 37 provides the  
co-branded web pages, member purchases on such pages can be directly tracked by the

administrative systems 22 and 23. In the case where the merchant's web server provides  
5 the co-branded web pages, the merchant's web server tracks member purchases, and  
merchant systems may transmit the details of the purchase to the member's special e-mail  
address for use by the administrator or the administrative systems as above. Rebate  
monies and other incentive amounts can also be either automatically forwarded at the time  
of the transaction, or alternatively, be forwarded only upon instructions from the  
10 administrative systems to transfer rebates and/or other incentive amounts.

### **5.3.2. CREDIT CARD ISSUING BANKS**

Credit card issuing banks may provide member transaction tracking  
information either by being a participant in a loyalty program like a merchant or  
15 manufacturer, or by providing access to their credit card accounts held by loyalty program  
members.

In a first embodiment, a credit card issuing bank is a participant, and a  
member receives rebates, points, other reward currencies or rewards based on use of an  
issued credit card. In this case, during registration, members complete a credit card  
20 application, which in the preferred embodiment is a co-branded credit card between the  
administrator and a credit card issuing bank (e.g., MBNA). The credit card issuing bank  
has agreed with the administrator to pay rebates or other incentive amounts based on  
purchases made with the card, and can track total amount of purchases made by each  
member using the credit cards by, for example, scanning its already available credit card  
25 account information for member transaction. Each member's credit card usage  
information is transmitted to administrative systems 22 and 23, and the total rebate or  
other incentive amount due the administrator is transferred from the credit card issuing  
bank, either automatically or upon request. These embodiments and alternatives apply  
equally to other forms of payment cards, such as debit cards, stored value cards or store-  
30 issued credit cards.

Having a credit card as a tracking mechanism allows members to receive  
rebates, points, other reward currencies and rewards for purchases of goods and services  
not only at the web sites of on-line merchants but also at the brick-and-mortar pretences of  
off-line merchants. In addition, a particular loyalty program may include participant credit  
35 card issuers with or without merchants/manufacturers as participants. On-line member  
purchases and off-line purchases, whether at the participating merchants or elsewhere, may  
be tracked as in the credit card case above. Where there are merchant or

manufacturer/supplier participants, a member's account details, or at least the purchase  
5 amounts at participating merchants or involving the products or services of  
manufacturer/supplier participants, must also be transmitted to the administrative systems  
to provide the merchant or manufacturer/supplier tracking information. Allocation of  
rebates, points, other reward currencies or rewards may now depend on whether  
participating merchants were used, whether products or services of participating  
10 manufacturers or suppliers were purchased, whether an issuer credit card was used, on  
whether both participating merchants and an issuer credit card were used, or on other  
combinations possible in view of the detail of the member tracking information.

In another embodiment, a member's after-acquired or pre-existing credit  
cards may be used to make loyalty-program purchases, whether or not an issuing bank  
15 provides rebates, points, other reward currencies or rewards to a member for purchases  
made with its credit card. Here, card identification by, for example, name, card number  
and expiration date, is provided during member registration (or subsequently), and this  
identification is used to retrieve tracking information from the issuing bank's payment  
information databases or other databases available to the administrator. Payment  
20 information is normally accumulated at issuing banks (or their processors) for holders of  
their issued cards, and may be searched by card number or secondarily by merchant. This  
information includes at least transaction date/time, merchant and payment amount, and is  
reported on a holder's periodic statement. (Also acquiring banks (or the processors) may  
accumulate similar transaction information, at least for certain statutory time periods,  
25 which is available by primarily merchant and secondarily by card number.)

In this embodiment, the administrative systems have stored member credit  
card information, either because it has been provided upon registration or because the  
credit card was co-branded and applied for upon registration. This credit card information  
may be stored, for example, as part of member database 27 (Fig. 2). To identify such  
30 member purchases for tracking, database server 23 would periodically (*e.g.*, daily, weekly,  
monthly, etc.) retrieve member credit card identification and transmit it, for example by  
using FTP server 39, to the issuing banks or other processors, typically identifying the  
issuing bank by digits 2 through 6 of the card number. For example, the administrator may  
supply to the card processors and merchant banks: member name as it appears on the  
35 registered credit card(s); type of credit card (*e.g.*, Visa, MasterCard, Discover, or American  
Express) as indicated by the first digit of the credit card number; and the user's account  
number typically indicated by the seventh and succeeding digits of the credit card number.

With such information, the issuing banks and other processors (who may receive from the administrator card digit numbers identifying the issuing bank) search their account databases for purchases made by the members (and preferably only at merchant sites). The purchase information generated by this search is then transmitted back to the administrative systems via, for example, FTP servers 39. In a preferred embodiment, only the purchase information for purchases made at or with participants or involving the products or services of participants is then transmitted back to the administrative systems via, for example, FTP servers 39. In a further alternative, this activity is completed on-line using the administrator system and the computer systems of the merchant banks and card processors communicating via the various means 21. This task may also be performed by a third-party provider with access to the relevant purchase information. [BB NOTE: CHECK REVISIONS TO THIS PARAGRAPH WITH BRETT]

Alternatively, where credit cards are co-branded between a loyalty program and an issuing bank, the bank already knows which holders are members, and may make a record of this in a holder's information. Then, such an issuing bank could supply tracking information for such members without input from the administrative systems. In a further  
20 alternative, acquiring systems can be queried to search for participating merchant or manufacturer credit card billing records by providing lists of participating merchants or manufacturers. Also, acquiring systems could be queried for member credit card payment records.

25 **5.3.3. PAYMENT NETWORKS**

In a preferred embodiment, member transactions may be tracked by payment networks otherwise devoted to credit or debit card processing. In this embodiment, a loyalty program member would be provided with a credit-card-type card that is recognized by the payment card processing system. Such a card, generically referred to herein as a loyalty card (or an “id” card), would have a valid and correctly-formatted account number as well as such physical features and indicia, such as a standard size and a standard-format magnetic stripe, sufficient for it to be recognized at point-of-sale terminals and other terminals capable of recognizing credit or debit cards. The basic function of a loyalty card is to identify a loyalty program member at the point of the transaction (also, the point-of-sale, or “POS”) and at the time of the transaction (also, the time-of-sale, or “TOS”) in order that the payment card processing systems can automatically generate transaction-tracking data.

In certain embodiments, loyalty cards have no further functions. However,  
5 it may be preferable for a loyalty card to be provided with additional, optional convenience features. For example, a loyalty card may also function as a payment card by being associated with either a credit account or a demand account. Also, a loyalty card can function as a direct incentive vehicle by being associated with a demand account charged (or credited) with value by rebates/rewards or other incentive amounts allocated by the  
10 loyalty program. This embodiment may advantageously have rules controlling allowed debits from the associated demand account, such as by only allowing payments for the products of a certain manufacturer made at a certain merchant. In the following, a loyalty card with only the basic function is referred to as an id-loyalty card (or simply as an “id-only” card); a card with payment features as a payment-loyalty card (or simply as a “id-payment” card); and a card with direct incentive features as an incentive-loyalty card (or  
15 simply as an “id-incentive” card).

For a loyalty program to be able to “issue” even simple id cards, it may be necessary for the program to become associated with a bank that otherwise issues standard credit cards. This is due at least to the operating agreements and membership agreements  
20 of present payment processing systems. To be able to issue id cards or id-payment cards with optional payment features (requiring associated accounts), association with one or more banks may be imperative. For another example, id-payment cards may be co-branded between the loyalty program and a bank that otherwise issues standard payment cards. Therefore, in a common but not limiting embodiment, loyalty programs are  
25 described as being associated with issuing banks that are capable of and actually issue loyalty cards to program members upon request. The following description primarily addresses this preferred embodiment, and separately describes the functions of the loyalty program and of the issuing bank. However, in other embodiments, the loyalty program itself would be capable of issuing loyalty cards, and issuing banks are not necessary. The  
30 following description is immediately applicable to this latter embodiment by simply combining the functions of the issuing bank into the administrator of the loyalty program.

Before describing the gathering of member tracking information using loyalty cards, basic features of existing payment-card networks are described.

### 35 **Payment Networks Generally**

Fig. 5A illustrates an exemplary payment-card network, including computer systems of the principal actors and communication links between these systems. Such a

network can support processing of either credit or debit cards. Fig. 5C, in which identical  
5 elements have identical reference numbers, illustrates the principal messages in network  
during this payment-card processing. In this latter figure, downward pointed arrows  
represent the advance of time during transaction processing. In both these figures, double-  
headed straight arrows 110-112 represent generally commercial transactions, while  
communication arrows 113-117, 150, 151 and 154-157 represent communications links or  
10 electronic messages exchanged between computer systems. Entities 100-104 represent the  
principal parties, along with their network-connected computer systems, that participate in  
member transactions and from which transaction tracking information is generated.  
Further, financial network 105 represents a payment/clearing network, such as the  
networks of the VISA or MasterCard associations. In accord with commercial practice,  
15 part of all of the computer systems of loyalty program 100, registered merchant 102, card  
issuer 103, payment gateway 104 and financial network 105, which process payment  
messages and transactions, may be subcontracted to third parties. Therefore, for example,  
payment gateway 104 may represent both a processor computer system, which handles  
messages and some or all of the related account processing, and also an acquiring bank,  
20 which may have further computer systems for certain account processing it chooses not to  
subcontract. Computer systems for loyalty program 100 and payment gateway 104 may be  
similarly configured.

For reference, first, the tracking-information embodiments previously  
described in Section 5.3.1 are generally illustrated in Figs. 5A and 5C by messages  
25 represented by the open dashed communication arrows and numbered 113' and 113".  
These messages are not part of the present embodiment, but may also occur if a loyalty  
program obtains tracking data according to both embodiments. Message 113' represents  
the embodiment in which tracking data is obtained from registered merchants or  
manufacturers 102 and directly transmitted to loyalty program 100. As described above,  
30 this communication may take place over the Internet, or other communication network,  
transaction-by-transaction or in batches of transactions. Message 113" represents the  
embodiment in which a payment card issuer is registered in a loyalty program and  
electronically transmits member tracking information directly to the administrative  
systems. Generating transaction-tracking information in these embodiments requires  
35 special software (or software modification) at each of the registered participants,  
merchants, manufacturers or card issuers, which extracts tracking information during  
routine commercial processing and transmits it to the administrative systems. Special

operational procedures at each participant may also be needed to periodically gather and  
5 transmit this information.

In a more preferred embodiment, member transaction-tracking information is generated and transmitted to a loyalty program automatically, as an incident to otherwise normally occurring processing and requiring no special software or special procedures or actions by registered participants. The current embodiment achieves automatic tracking by  
10 using existing functions of payment-card processing for new purposes, or alternatively by adding minimal new enhancement, to existing payment card transaction processing. Therefore, any necessary modifications or changes can be made once in payment processing systems, and need not therefore be individually made at each participant. This lowers overall loyalty system costs.

15 Before describing these enhancements, payment processing is first described for a sample transaction where a standard credit or debit card is used. The following description of the sample transaction is primarily directed to the payment cards of multi-bank card associations, such as VISA or MasterCard. But this example is not limiting, because the present invention is also applicable, first, to the well known  
20 variations of this model where the functions separately described herein are performed within one administrative entity (such as the American Express system), and second, to further variations that one of skill in the art will appreciate to be equivalent to the following.

With reference to Figs. 5A and 5B, when card holder 101, having a  
25 payment card issued by card issuer 103, for example an issuing bank, makes, for example purchase 111, at merchant 102 and offers to make payment with the issued payment card, the merchant first obtains authorization at the TOS (time-of-sale) to charge the payment card with the purchase amount. Using POS (point-of-sale) terminal equipment, the merchant collects authorization information typically including, at least, payment card  
30 identifying information preferably read from the card's magnetic strip, pre-entered merchant identifying information, and the purchase amount, which can be manually entered or automatically transferred from the POS cash register. More advanced POS equipment may also "scan" products and make available their identifications, for example as universal product codes ("UPCs"), stock-keeping units ("SKUs"), and so forth. If this  
35 information is transmitted during payment processing, a loyalty program can advantageously capture and use it for novel and creative loyalty programs. The collected authorization information is then transmitted over communication link 114 to the



merchant's payment gateway 104 for the type of payment card used. The payment  
5 gateway is usually a bank that has agreed to acquire the merchant's receivables for this  
type of payment card, or the acquiring bank's third-party processor. Transmission of the  
authorization request, and subsequent reception of an authorization response, between the  
merchant and payment gateway is represented in Fig. 5C by message request/response  
exchange 150 illustrated as occurring at substantially the time of purchase 111.

10 Before approving the transaction, the payment gateway (or the acquiring  
bank), usually seeks real-time transaction authorization from the card issuing bank (or its  
third-party processor) by transmitting an authorization request over links 115 and 116,  
usually using the intermediation of financial network 105. Message exchange 151  
represents the real-time inter-bank authorization request and response messages. Issuing  
15 bank processing of an authorization request message depends generally on whether the  
payment card is a credit card or a debit card. In the case of a credit card, the issuing bank  
typically checks the card holder's account status, and authorizes the transaction if the  
holder has sufficient credit and there is no evidence of fraud. Credit card authorization  
processing may be done by the issuing bank's processor. Otherwise, the authorization is  
20 declined. In the case of a debit card, or stored-value card having a fixed pool of available  
funds, the issuing bank must instead check for sufficient funds, and if approved, mark  
necessary funds as held to satisfy the upcoming settlement of the current transaction.  
Evidence of fraud may also be checked.

If the issuing bank authorizes the transaction, a positive authorization  
25 response message 151 is transmitted back to the payment gateway, which then transmits a  
positive approval response message 150 to the merchant's POS terminal. The transaction  
may then be completed. Depending on the agreement between the merchant and the  
payment gateway, the payment amount may then be credited to the merchant's account  
(alternatively, the crediting may be done later at settlement time). If the transaction is not  
30 authorized, the payment gateway receives an authorization response message 151  
indicating that the card transaction is declined; and the payment gateway indicates the  
same to the POS terminal. In this case, the card holder must use another form of payment.

Funds transfer from the issuing bank to the acquiring bank for authorized  
transactions typically proceeds by means of a clearinghouse function implemented in  
35 financial network 105. Either on a transaction-by-transaction basis, or in periodic (*e.g.*,  
hourly, twice daily, daily, etc.) transaction batches, merchant 102 transmits capture  
messages 154 to its acquiring bank requesting funds due and providing information on the

transaction for which they are due. Net capture messages 155 are then transmitted by the  
 5 acquiring bank into financial network 105. After performing a clearinghouse function, the  
 financial network transmits to issuing bank 103 further capture messages indicating the  
 transactions on that bank and requesting the net amount due. Issuing bank response to the  
 capture messages effects funds transfer. For a credit card, the card holder's account may  
 then be debited; for a debit card, the held funds are removed from the account.

10 Payment card processing has known variations to which the present  
 invention is equally applicable. First, issuing bank 103 and acquiring bank 104 may be the  
 same (known as "on-us" transactions). For "on-us" transactions, equivalent functions are  
 performed internally in the computer systems of one bank that were performed by different  
 banks in the example above; that is, transaction authorization functions, or their  
 15 equivalent, are performed at the TOS and settlement functions, or their equivalent,  
 between accounts are performed then or later. Because processing is internal, message  
 communication links 115 and 116 are now intra-bank, if they physically exist at all, and  
 use of a financial network is not always necessary. A further variation is exemplified by  
 American Express payment cards. American Express includes internally all the actors and  
 20 communication links of Fig. 5A; that is, American Express functions as the issuing bank,  
 the acquiring bank and the financial network. In this case also, authorization is performed  
 at the TOS with settlement occurring then or later. The elements of Fig 5A may be  
 functional and not physical.

Preferred payment networks are those maintained by Visa, MasterCard  
 25 International Incorporated (Purchase, N.Y.), American Express, and Discover.

### **Gathering Tracking Information**

The automatic gathering of loyalty-program tracking information is based  
 upon minimal but novel modification to the above-described payment-card processing.

30 Gathering member-transaction tracking information, according to the present embodiment,  
 results from a side effect of authorization processing at the TOS. This processing in  
 skeleton form sends to the card issuer (or issuing bank) an electronic request message  
 seeking payment approval, which then returns to the POS an electronic response message  
 indicating, at least, payment approval or refusal. According to the present embodiment,  
 35 the card issuer during authorization processing simply transmits authorization-time ("auth-  
 time") message 153 (Fig. 5C) to administrative systems 22 and 23 (Fig. 2) of the loyalty  
 program, which contains information extracted from the payment authorization request

5 messages 150 and 151. This auth-time message includes minimal tracking information, *i.e.*, card holder identifying information, merchant (generally POS) identifying information, and the amount of the proposed transaction, which is necessarily present in the pre-existing authorization request messages. Preferably, it may also include, where available, information identifying the goods or services of the proposed transaction and their supplier or manufacturer, or so forth, an indication of transaction approval or refusal, and so forth, which permit more fine grained loyalty programs.

Generation of auth-time message 153 has several embodiments. In an embodiment preferred for low cost and rapid implementation, this message is a pre-existing payment-system message, already generated but now used for the additional purpose of providing tracking information. This embodiment is described with reference to Fig. 5B illustrates portion 118 of Fig. 5A in more detail. Herein, card issuer 103b is illustrated as distinct from any third-party information processor 103a (where the card issuer is its own processor, this distinction may be only functional). In this simple embodiment, card issuer 103b issues id-only cards that are recognized by standard POS equipment and appear to the payment network as valid credit cards, but to a card holder or merchant appear, physically distinguishable from cards having an actual payment function (for example, by not having an embossed account number or showing less than the standard sixteen-digit number contained on credit cards). Payment must therefore be made by another means (cash, check, credit card, or forth). To identify a purchase, or other transaction, to the loyalty program, the member has the participant "swipe" such an id-only card, or otherwise enters the id-only card information, into the POS equipment along with at least the amount of the purchase. The payment system, in particular the payment gateway, then generates authorization request message 151, which arrives across transmission link 116 from financial network 105 at processor 103a, which then performs authorization processing.

30 In one alternative of this simple embodiment, the card's payment functions are disabled by marking the card account information maintained by the systems of the processor 103a (of by the systems of the issuer 103b) so that all payment authorizations for id-only cards are declined. In this case, an authorization response indicating denial is returned to the merchant, and the id-card holder then effects actual payment by other means. In existing payment-card systems and with simpler POS equipment, it may not be possible to return to the POS a message indicating the true reason for denial. These systems may be limited to providing only a single, unqualified approval-denied indicia.

Preferably, authorization response messages provided by the payment system are capable  
5 of carrying, at least, coded reasons for approval denial, and one of the reason codes is for  
the loyalty program and causes display of helpful indicia, for example indicating that  
loyalty-program transaction identification is successful and payment may now be made.

More preferably, freely definable information may be transmitted in the  
authorization response or in a message accompanying the authorization response. This  
10 information may include incentivizing information, perhaps specific to the card holder.  
Such information could include the estimated rebate/reward or other incentive just  
received. It may also include reminders to the card holder from the loyalty program  
system. Further, it may include promotional offers to the card holder at the point of sale.  
Such offers could be for items related to that just purchased, or to offers related to the  
15 merchant, or so forth.

Now, turning finally to generation of tracking information, during credit  
card authorization denial in pre-existing payment-card networks, processor 103a usually  
generates a further message reflecting the denial and including information about the  
denied transaction, and transmits it at authorization time to issuing bank 103b via  
20 communication link 117'. This real-time transmission of denial information helps the  
issuing bank typically identify excessive credit usage by its customers, to identify and  
staunch a developing fraud before losses accumulate, and for other security reasons. In the  
present implementation, the pre-existing denial message is simply sent to the loyalty-  
program administrative systems 22 and 23. In order words, loyalty program 100 is made to  
25 appear to processor 103a as the issuing bank 103b for these id-only cards, and thereby its  
administrative systems (possibly along with the formal card issuer 103b) receive all denial  
messages for id-type cards from processor 103a. The information in these auth-time  
denial messages is sufficient for member transaction tracking.

For debit cards, similar authorization-time processing also permits a low  
30 cost and rapid implementation by redirecting pre-existing authorization time messages to  
the loyalty program. To authorize debit-card payment, processor 103a virtually always  
communicates with issuing bank 103b, because it maintains the demand account records  
for its debit card holders. Accordingly, at authorization time, processor 103a transmits a  
message (often known as an "advice" message) over communications link 117 to issuing  
35 bank 103b advising it of the transaction amount and requesting authorization. In normal  
debit card processing, after checking for sufficient funds, and holding funds for settlement,  
the issuing bank responds to the processor. For debit-type id-only cards, the loyalty

program again appears to processor 103a as the issuing bank, and its administrative  
5 systems receive thereby all advice messages. These are illustrated as auth-time messages  
153 (Fig. 2). Administrative systems 100 then merely save transaction-tracking  
information from advice message in its databases, and responds to processor 103a with a  
message denying the requested transaction.

These embodiments of low cost and rapidly implementable transaction  
10 tracking at authorization time are not limiting. For example, the computer systems and  
software of the issuing bank or of its processor may be modified to routinely generate new  
transaction tracking messages and transmit them to an appropriate loyalty program in all  
cases. The loyalty program to which the message should be directed may be identified  
from information stored in databases in association with the card numbers.

15

#### **Use of Payment-Type Cards**

Turning now to id-payment cards and first to debit-type id-payment cards,  
loyalty-program tracking information can easily be obtained as just described from the pre-  
existing advice messages. Advice messages are routinely transmitted at authorization time  
20 to the issuing bank in order to check on funds availability and optionally to hold funds for  
settlement, and they contain sufficient information for loyalty program transaction  
tracking. These authorization-time messages can, for example, be simply mirrored to the  
administrative systems of loyalty program 100 from processor 103a when they are  
transmitted to issuing bank 103b. Alternatively, they can be re-transmitted from issuing  
25 bank 103b to loyalty-program administrative systems. Second, for credit-type id-payment  
cards, it may be necessary to minimally supplement authorization processing at processor  
103a to produce a "pseudo-decline-type" message also in case of transaction approval.  
This new "pseudo-decline-type" message would contain at least member and participant  
identification and transaction amount so that the transaction can be tracked by loyalty  
30 program 100, if such message is also re-transmitted from issuing bank 103b to loyalty-  
program administrative systems.

Incentive cards with a stored-value component may function, in a further  
embodiment, similarly to debit-type id-payment cards. These cards are (at least nominally)  
issued by a qualified issuing organization, such as a card-association member bank, which  
35 also holds the accounts funding these cards for individual member card holders.  
Transaction tracking information may be generated as above by taking advantage of pre-  
existing advice messages, or their equivalent, which may be mirrored from a processor or

re-transmitted from the card issuer to provide the tracking information. In case payment  
5 authorization is declined due to insufficient funds or other cause, the payment processing  
may still be used for identification only purposes, for example by obtaining tracking  
information from pre-existing decline messages, and an appropriate message returned to  
the POS. Using coded, or preferably free-form fields, in the authorization response  
message, the card holder may be politely informed that, for example, although the holder's  
10 rebate value pool is too low, the current transaction is already poised to replenish the  
rebate value pool. Value is deposited in the debit-type id-card accounts asynchronously to  
payment transaction processing by loyalty program administrative systems when rebates,  
points, other reward currencies or rewards are allocated to direct incentives for particular  
member cardholders. To carry out value updates, the loyalty program may send update  
15 messages 157 (Fig. 5C) to the computer systems of the card issuer, or to those of its  
processor, where the account value is stored and processed.

In an alternative embodiment, use of debit-type id-payment cards can be  
restricted to achieve targeted and directed incentive programs. Directed programs can be  
implemented by, for example, attaching rules to each id-payment account, or group of  
20 accounts. The rules may be examined (or executed) at authorization time in view of  
information transmitted as part of the authorization process (and possibly also in view of  
the past behavior of a cardholder) to determine whether a particular transaction will be  
authorized even if there are insufficient funds. Use of rebates or other incentives from a  
particular merchant can be limited to future purchases at that merchant by identifying the  
25 sources of funds in an account and authorizing a transaction only if the merchant  
requesting the authorization is a source of sufficient funds. Similarly, use of rebates or  
other incentives from a particular manufacturer can be limited to that manufacturer's  
products if SKU or UPC information is available at authorization time so that the product  
for purchase can be identified. Use of rebates or other incentives can be limited to  
30 products of a particular manufacturer purchased at a particular merchant. Use of rebates or  
other incentives can be limited to a particular time, by keeping track of an expiration date  
for portions of the account and then debiting the account for that portion when it has  
expired. Similarly, use of rebates or other incentives can be limited to frequent purchases,  
purchasers in certain groups, or so forth.

35 The description above has considered only the information currently and  
commonly available on payment networks. Currently, product identifying information of  
SKU-type or UPC-type is not commonly available on payment networks. This

information may become available with the increasing use of smarter, more capable POS  
5 equipment. When available, it can be extracted from payment network messages  
illustrated in Fig. 5C and sent to the loyalty system, where it permits more granular loyalty  
programs to be implemented. For example, the electronic or on-line equivalent of product  
coupons may be cheaply implemented without the expense and customer inconvenience of  
handling paper coupons. When the administrative systems track purchases of a particular  
10 discounted product, the offered reward or rebate could be generated as a credit to the  
member and a debit to the merchant or manufacturer; that is, as an electronic coupon. The  
use of such an electronic coupon may be unrestricted or may be associated with rules  
restricting use of the coupon to particular products as described above. One of skill in the  
art may immediately conceive of further rebate or reward programs possible by using such  
15 information.

Also, the description above has considered tracking information available at  
authorization time. But the present invention is not so limited, and certain information  
may be partially or entirely transferred later in the payment process, for example, at funds  
capture time or in a batch-file transmitted on a periodic basis (daily, weekly or so forth) to  
20 the loyalty program. Such information is represented by cap-time messages 156  
transmitted to loyalty program 100. Although payment authorization generally needs to be  
done at authorization time - authorization for id-only cards is always declined and  
authorization for id-payment cards is checked - transmission of further transaction details  
can be delayed until later. For example, product purchase identification can be transmitted  
25 to the loyalty program when available and linked with earlier authorization time  
information by, for example, a transaction identifier.

Although described above for off-line transactions at physical premises of  
merchants, the above methods and systems can also be equally used to track on-line  
transactions made at a merchant's "virtual" premises or through a merchant's catalog sales  
30 system. For example, an id-only card can be used on-line (or over the telephone or by mail  
or e-mail) in a manner exactly analogous to the off-line use described. It can be presented  
first, followed by a payment card for actual payment. Id-payment cards can also be used  
on-line.

### 35 **Use of Private-Label Cards**

The present invention also includes the use of above-described tracking  
methods with private-label credit or payment cards. Individual merchants, such as

department stores or gasoline distributors, use such private-label credit cards to extend  
5 credit to their customer only for purchases at their own venues. Since processing of these  
cards usually involves an on-line authorization checking at the TOS by the merchant's  
computer systems, all the above-described loyalty-program tracking methods can be  
straightforwardly applied to these cards.

Additionally, merchants may have stored value cards that have a fixed  
10 value that is debited for purchases. Where the current stored value is stored centrally on  
merchant systems, then authorization time processing is usually preformed, and may be  
similarly adapted to the above-described loyalty program tracking methods. In some cases,  
the current value may be stored on the card itself (for example, as in a smart money card).  
Here, the present invention can implement tracking methods by, for example, having  
15 merchant POS equipment that records member transactions, at least member identity and  
transaction amount, and makes this information available to the administrator systems,  
either in real-time or for upload of batches of transactions. Alternately, the card may keep  
a counter of the amount of transactions at the particular merchant. Tracking data may be  
obtained by reading and resetting this counter by administrator (or merchant) systems.  
20 This counter can be implemented in a smart card memory or on a legacy magnetic stripe.

Further variations in the capture of transaction tracking information from  
payment network messages generated by the processing of payment cards of a wide variety  
of types are within the spirit of the above description that will be apparent to one of skill in  
the art in view of this description are also intended to be within the scope of this invention.  
25

#### **5.3.4. OTHER TRACKING MEANS**

Other methods of obtaining member-tracking information may also be used  
in the present invention. For example, member purchases that are made via an electronic  
wallet could be tracked. An electronic wallet is conventionally understood to be a  
30 software component that resides on a user's computer and includes user identifying data  
and data describing debit or credit cards that the user wishes to use for payment in on-line  
transactions. An electronic wallet automatically and securely provides on-line this  
payment information to a merchant. For use in the present invention, electronic wallet  
software would additionally transmit on-line transaction information to administrative  
35 systems 22 and 23 via, for example, the Internet. If a member with a local computer  
wishes to use an electronic wallet for providing tracking information, the member would  
first register for an electronic wallet on the administrative web site, and the electronic



wallet software would be downloaded onto the member's computer. Alternatively, instead  
5 of an entire electronic wallet, upgrades or modifications to existing electronic wallets that  
performed the additional functions relied on by this invention could be downloaded. Then,  
the member's use of this electronic wallet in on-line purchases would automatically  
generate and send tracking information to the loyalty system databases.

Generally, the present invention may be used with other electronic payment  
10 means, such as electronic checks, electronic cash, the EZ-pass payment system, other  
similar systems and so forth. These electronic payment forms may be implemented over  
computer networks, such as the Internet or private financial networks, or by use of devices  
such as smart cards, tamper-proof (or secure) memories, or so forth. These electronic  
payment systems can easily be adapted for use in the present invention in a manner  
15 generally similar to the methods described above for financial and payment networks. For  
example, messages already generated during processing of these other electronic payment  
means and containing transaction-tracking information can be copied to the administrative  
systems of this invention. Alternatively, software modifications can generate additional  
messages with transaction tracking for the administrative systems of this invention.  
20 Thereby, member transaction tracking may then be collected without intervention of the  
member or the participant during transactions of all types where payment is implemented  
by such electronic payment means.

#### **5.4. ALLOCATION OF LOYALTY AMOUNTS**

25 With reference to Fig. 3, rebates, points, other reward currencies and  
rewards 58 due from participants 51 because of member 50 transactions 57 are transferred  
58 and 59, directly or indirectly, to escrow or other administrative account 56, or  
alternatively to an account of administrator 52. For each member, rebates and other  
incentive amounts received are allocated 73 to loyalty vehicles, either periodically (*e.g.*,  
30 daily, weekly, monthly, or so forth), or when a specific minimum has been received, or so  
forth, under control 64 of the administrator 52.

With reference to Fig. 2, periodically database systems 23 query  
rebate/reward/incentive information 29 to determine the amounts due from the  
participants. The administrative systems then communicate, for example, via FTP server  
35 39, a request to the participants for these amounts. The participants, as agreed, then  
request their banks or other agents to transfer these amounts to the financial or other  
institutions holding administrator accounts, or the escrow or other administrative account,

or through the member agents. When the transfers are completed, the financial or other  
5 institutions notify the administrative system, for example, again through FTP server 39,  
and database systems 23 update reward/rebate/incentive information 29, member accounts  
31, and its account information in administrative information 33 (or other data item), and  
other data items.

Also periodically, database system 23 queries the database for funds or  
10 other incentive amounts available for allocation. This computation results in messages or  
FTP files transmitted to its agents, which instruct them, *inter alia*, to transfer monies or  
other incentive amounts to direct incentive accounts of the members or to security transfer  
agents and/or its security brokers to buy or sell securities. The administrative system  
monitors replies from its agents indicating successful completion of their instructions.

15 Items in database 26 are then appropriately updated.

The present invention can employ numerous loyalty vehicles. Illustrated in  
Fig. 3 are two preferred types of vehicles: equity investments and current incentives.

Selection between these two types, and between subtypes of each type, is typically under  
the control of the members. An individual member may, for example, have a longer-term  
20 savings orientation and choose equity or other investments, or shorter-term consumption  
orientation and choose current incentives. These control choices can be represented as  
allocation rules that are a function of, at least, member and participant identity, and also  
other factors, such as type of transaction or product purchased or the existence of a  
participant's current promotion programs. Such rules would be executed by administrator

25 52 in the process of rebate or reward allocation.

The two illustrated loyalty vehicles are next described in more detail.

#### **5.4.1. EQUITY FUND INVESTMENTS**

In one embodiment, member rebates are at least partially allocated to  
30 equities, preferably equities of participants, and more preferably to a fund for investment  
by or through which the publicly traded equities of at least one participant are purchased.  
The latter embodiment is discussed in the following primarily with respect to merchant  
participants, but it can be immediately applied to participants of all types, for example to  
manufacturers or to credit card issuers.

35 In more detail, equity investments can be, for example, investments in  
individual securities or investments by or through a fund for investment, including a  
mutual fund, that purchases several securities (and, optionally, also cash). Individual

securities are preferably securities of the participant furnishing the particular rebate, or  
5 participants furnishing rebates, to be allocated, or they may be one or more securities  
chosen by or for the member for investment. Funds for investment, including mutual  
funds, by or through which securities are purchased preferably purchase publicly traded  
securities of at least one participant. Purchase and sale of securities or mutual funds are  
only schematically illustrated in Fig. 3 by loyalty vehicle 63. In a typical scenario, the  
10 administrator would use a broker agent, which would buy and sell on security exchanges  
or in other public markets 65 under administrator 52 direction. Rebates, rewards and other  
incentives allocated to equity investments would then be sent to (or received from) a the  
security broker or transfer or other agent, which would also hold and/or transfer securities.  
In the case of a mutual or similar fund, a security broker or transfer agent could hold a  
15 position in the fund's securities proportionately for the benefit of each member and/or  
issue shares proportionately to members. Members may also be able to request their own  
transactions in securities and transactions by or through funds for investment as illustrated  
by interaction 68. The next subsection describes the operation of funds for investment in  
more detail.

20 Loyalty vehicles including funds for investment that purchase publicly  
traded equities of at least one participant are the preferred loyalty vehicles and are  
described next in more detail.

Concerning the preferred equity fund loyalty vehicle, now described are the  
preferred methods of converting rebates and other incentive amounts to securities  
25 purchased by or through the fund or to shares in the fund, preferred methods for  
purchasing equities and the preferred methods for fund administration. These are followed  
by a fund example. First, in the preferred method of converting the rebates and other  
incentive amounts that members have earned through their purchases into shares of an  
investment, database server 23 periodically (*e.g.*, preferably monthly) queries the member  
30 purchase/rebate information 29 to locate member accounts that have total rebate and other  
incentive amounts that exceed a specified minimum amount (*e.g.*, the minimum amount  
may be less than \$10, \$100 or other appropriate amount). The result of the query is then  
compiled into a FTP file and sent to a FTP server at the transfer agent, broker dealer or  
other agent previously selected by the administrator. The administrator also causes monies  
35 in the escrow or other administrative account 56 corresponding to these rebate and other  
incentive amounts (less any fees that may be charged by the administrator) to be forwarded

to this transfer agent, broker dealer or other agent so that the monies can be invested in the equities 63, preferably in the publicly traded equities of at least one participant.

Next, in the preferred embodiment of purchasing securities of at least one participant, database server 23 preferably queries stored purchase/rebate information 29 to determine what securities of at least one participant should be purchased and in what amount(s). Specifically, in the preferred automated embodiment, the database server 23 calculates the amount of rebate monies and other incentive amounts received from each publicly-traded participant whose publicly traded securities are purchased by or through the fund. Server 23 also preferably calculates the rebate monies and other incentive amounts received from participants whose securities are not purchased by or through the fund so that these monies may be invested across the fund's then existing portfolio or array of securities purchased (or otherwise invested). This information is then compiled into an FTP file that is sent via the administrator FTP servers 39 to the FTP server of a previously selected security broker.

The rebate monies and other incentive amounts are preferably invested as follows: First, to the extent that a participant is, or is a subsidiary of, a publicly traded entity (a public participant) listed on a nationally recognized United States securities market or international securities market (*e.g.*, the NYSE, the NASDAQ Stock Market, the London Stock Exchange, Tokyo Stock Exchange, etc.), the rebate monies and incentive amounts received from the participant are invested in shares of equity securities of that participant or that participant's publicly traded parent company, if that participant's securities are purchased by or through the fund in the amounts so indicated. Second, to the extent that the securities of a participant or its parent are not purchased by or through the fund in the amounts so indicated, , then the rebate monies and other incentive amounts received from the participant may be preferably invested across the array of securities that have been purchased by or through the fund. Alternatively, such participant rebate monies and other incentive amounts could be invested in other publicly traded companies. Third, the fund, may at the discretion of the administrator, use rebate monies or other amounts available for investment (or reallocate rebate monies and other incentive amounts received from a specific participant to the purchase of shares of companies other than such participant) to maintain diversification as may be required by SEC or international or other regulations. Fourth, the fund, at the discretion of the administrator or otherwise, may retain certain amounts in cash or purchase other securities as dictated by prudence and fiduciary considerations.

The selected broker purchases the participant or other securities (as  
5 illustrated by interaction 66) as directed by the administrator or otherwise and transmits a  
confirmation FTP file to the administrator FTP server 39. The server database 23 then  
accesses the confirmation file and automatically updates the stored investment and/or fund  
information 30 to reflect the security purchases.

Instead of sending an FTP file to the broker, the database server 23 may  
10 simply generate information regarding what participant or other securities should be  
purchased, and the administrator could then simply provide the purchase information to  
the broker verbally, in writing, or by some other electronic means. If a transfer or other  
agent is used, the broker or the administrator preferably provides the security purchase  
information to the transfer or other agent via an FTP file, via other electronic means, or  
15 through other available means. As mentioned above, the administrator may perform the  
functions of the broker or transfer or other agent.

As illustrated by interaction 67, the administrator periodically provides  
information concerning the fund to its members. In the preferred embodiment, the broker  
dealer or transfer or other agent periodically provides fund and investment information to  
20 the administrator via an FTP file, via other electronic means, or through other available  
means, and such information is compiled by the administrative system and provided on  
member home pages and/or e-mailed to the members. For example, information  
concerning the fund and/or securities, such as reports, statements, forms, and general  
correspondence is made available on member account pages and/or is e-mailed to the  
25 members via the server.

The fund provides returns on investments to the members as also shown by  
interaction 67. Of course, the value of a member's investments is subject to not only  
earned rebates/other incentive amounts and direct purchases of securities in, by or through  
the fund, but also the performance of the securities themselves. In the case of a mutual  
30 fund, the value of the fund rises and falls with the value of its underlying securities. When  
a member seeks to redeem or sell all or some of the member-owned securities for cash, the  
member is required to send a redemption or sell form to the administrator. The form is  
preferably available on-line at the member account-page.

The redemption or sell requests are preferably accepted and processed on a  
35 periodic basis such as daily, monthly, or quarterly. In the preferred embodiment, the  
redemption or sell form is received on-line by the database server 23, compiled into an  
FTP file, and sent via administrator FTP server 39 to the selected transfer agent's or broker

dealer's FTP server. The transfer agent or broker dealer then processes the form, and  
5 sends a confirmation file to the administrator FTP server 39. The server database 23 then  
accesses the file, and updates the stored fund or investment information 30 and member  
account information 31. Other electronic means that can provide the relevant information  
to/from the administrative system 22 and 23 and the transfer agent or broker dealer may  
also be used.

10 Advantageously, members may also choose to make direct investments in  
or through the fund. Such investments may be completed at the administrator web site via  
a credit card or other type of purchase. Additionally, members may elect to make direct  
investments in or through the fund by direct deposit arrangements, checks submitted to the  
administrator, or other payment mechanisms. Once the direct investment purchase is  
15 made, purchase/rebate stored information 29 is preferably automatically updated to reflect  
this activity. Advantageously, database server 23 may periodically calculate the total  
amount of such direct investments in the escrow or other administrative account, add it to  
the total amount of rebates or other incentives received from participants whose securities  
are not purchased by or through the fund, and invest or direct the broker agent to invest the  
20 total amount across the fund's then existing portfolio or array of securities purchased.

#### **5.4.2. DIRECT INCENTIVES**

Next, current incentives may be of several types, and are preferably  
implemented as id-payment cards of the debit type with associated authorization-time  
25 rules, which determine how the stored value may be used by authorizing or declining  
proposed payments. For example, a certain participant may wish to give an unrestricted  
"cash-back" promotion on certain products, in which use of these amounts are not subject  
to any rules. The cash-back amount can be changed from time-to-time upon information  
provided to administrator 52 by participant 51 (preferably by electronic messages between  
30 their computer systems). Alternatively, another participant may wish to limit use of  
rebates, rewards or other incentives to the same or related products, in which case the rules  
would authorize payment only for these products. If a transaction is not authorized, a  
helpful, incentivizing message may preferably be returned to the member at the POS  
explaining the lack of approval. The tied products may be changed from time to time upon  
35 information provided by the participant. Also, a merchant may give rebates or other  
incentives usable only at the store of the original transaction. Other current incentive

schemes, which are known to those of skill in the marketing arts, can be implemented by  
5 appropriate authorization time rules.

These rules, if any, associated with the amounts stored for an id-debit card are executed at authorization time by the issuing bank or by its third-party processor in order to authorize transactions.

## 10 **5.5. OTHER EMBODIMENTS**

While the invention has been described in conjunction with specific embodiments, it is evident that numerous alternatives, modifications, and variations will be apparent to those skilled in the art in light of the foregoing description. For example, while in the preferred embodiments, the database server 23 automatically updates its  
15 stored information to reflect member purchases, rebate monies and incentive amounts owed to and received by the administrator, and information relating to the member's allocation among loyalty vehicles, the administrator may gather some or all of this information via other means and input such information into the database server 23. Moreover, many of the administrator functions described above may be out-sourced by the  
20 administrator to third party information processing organizations. For example, the tracking of member purchases, the billing of participants for rebate monies and incentive amounts, and the receipt of such rebate monies and incentive amounts may be performed by an information processing organization under the general direction of the administrator. Moreover, the administration of the escrow account that holds the rebate monies and other  
25 incentive amounts may be out-sourced. In such cases, the relevant information is provided (preferably electronically) to the administrator, inputted into the database server 23, and maintained in the database server 23.

Also, the various processing and data storage functions of the invention can be allocated among the actors participating in a loyalty program other than in the preferred  
30 allocation described above. For example, participants may themselves store transaction-tracking information, whether it is determined by them or determined by a financial network or other electronic payment means. Using this stored tracking information, participants may then compute rebates and other incentive amounts due members on the basis of their own rebate and incentive schedules, and cause amounts due to be forwarded  
35 to the administrator without administrator intervention.

The invention described and claimed herein is not to be limited in scope by  
5 the preferred embodiments herein disclosed, since these embodiments are intended as  
illustrations of several aspects of the invention. Any equivalent embodiments are intended  
to be within the scope of this invention. Indeed, various modifications of the invention in  
addition to those shown and described herein will become apparent to those skilled in the  
art from the foregoing description. Such modifications are also intended to fall within the  
10 scope of the appended claims.

A number of references are cited herein, the entire disclosures of which are  
incorporated herein, in their entirety, by reference for all purposes. Further, none of these  
references, regardless of how characterized above, is admitted as prior to the invention of  
the subject matter claimed herein.

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**WHAT IS CLAIMED IS:**

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1. A computer system for incentivizing members of a consumer-loyalty program comprising:

a processor, and

a computer-readable memory accessible to the processor, wherein the memory

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comprises data and programs for causing the processor to:

a) identify member transactions that are of interest to at least one of one or more program participants, whereby the members are incentivized to make further transactions with participants, and wherein a transaction made by a member is identified in cooperation with a financial network and in  
15 dependence on identifying information provided by the member during the transaction,

b) receive incentives for the members due from the participants determined in dependence on the identified transactions, and

20

c) allocate the received incentives among at least one of one or more loyalty vehicles for the benefit of the members,

whereby the members are incentivized to perform further transactions of interest thereby enhancing consumer loyalty.

25

2. The system of claim 1 wherein a member transaction that is performed at a participant is of interest to the participant.

3. The system of claim 1 wherein a member transaction the subject of which comprises participant goods or participant services is of interest to the participant.  
30

4. The system of claim 3 wherein the participant services comprise transaction payment services.

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5. The system of claim 1 further comprising a communication interface with the financial network for exchanging data identifying member transactions.

- 5 6. The system of claim 1 further comprising a communications interface with computer systems of one or more participants for exchanging participant instruction data.
7. The system of claim 1 wherein the program allocates determined incentives in dependence on at least allocation-instruction data received from the participants.
- 10 8. The system of claim 1 wherein the program allocates determined incentives in dependence on at least allocation-instruction data received from a member for that member's incentives.
- 15 9. The system of claim 1 wherein identifying information is derived from biometric data scanned from a member during a transaction.
10. The system of claim 9 wherein the biometric data comprises characteristics of a member's retina, or of a member's fingerprint, or of a member's voice.
- 20 11. The system of claim 1 wherein identifying information is provided during member transactions from portable-member-identification devices, each member having an identification device carrying that member's identifying information.
- 25 12. The system of claim 11 wherein the identifying devices comprise personal digital assistants, or hand-held computers, or cell phones, or portable computing devices.
13. The system of claim 11 wherein the identifying devices comprise at least one device in the form of a standard credit card.
- 30 14. The system of claim 13 wherein the identifying devices comprises loyalty-program member cards, or credit cards, or debit cards, or store-issued credit cards, or stored-value cards.
- 35 15. The system of claim 13 wherein the loyalty-program-member cards in cooperation with the financial network cause presentation of at least one message during a member transaction having indicia indicating that the member transaction has been identified.

- 5 16. The system of claim 11 wherein the identifying device in cooperation with the financial network provides for at least partial payment of member transactions.
17. The system of claim 1 wherein the program further causes the processor to receive member-registration information for registration of new members.
- 10 18. The system of claim 1 wherein new member registration further comprises exchanging new member identifying information with the financial network.
19. The system of claim 18 wherein new member registration further comprises issuing
- 15 cards which can be processed by a financial network for providing at least partial payment for member transactions.
20. The system of claim 19 wherein the payment comprises values of direct incentives.
- 20 21. The system of claim 1 wherein the financial network further processes payment by credit card.
22. The system of claim 1 wherein the identification of member transactions further comprises identifying values of the member transactions.
- 25 23. The system of claim 1 wherein member transactions comprise purchasing goods or services, and wherein the identification of member transactions further comprises identifying the purchased goods and services.
- 30 24. The system of claim 1 further comprising member identification devices for providing identifying information during transactions.
25. The system of claim 24 wherein member identification devices do not have a payment function, and wherein the financial network does not authorize payment by member
- 35 identification devices when member identification devices are presented during member transactions at participants.

26. The system of claim 25 wherein the financial network further transmits messages to  
5 locations where members have presented member identification devices, and wherein the  
transmitted message includes indicia indicating that the member transaction has been  
successfully identified.

27. The system of claim 24 wherein member identification devices have a payment  
10 function, and wherein the financial network authorizes at least partial payment by member  
identification devices when member identification devices are presented during member  
transactions at participants.

28. The system of claim 27 wherein the member identification devices is a credit card,  
15 debit card, store-issued credit card or stored-value card.

29. The system of claim 24 wherein identification devices are issued by at least one bank  
that is a participant, and wherein the bank determines an incentive amount based on  
aggregate transactions made using the bank's issued identification devices.

20

30. The system of claim 1 wherein incentives comprise rebates, and wherein the rebates  
received vary in dependence on both the total transaction value and on the identities of the  
goods and services purchased.

25 31. The system of claim 1 wherein the participants are merchants, manufacturers, or  
providers of payment services to the members.

32. The system of claim 1 wherein the loyalty vehicles further comprise an investment  
fund, and wherein the composition of the fund reflects at least in part the rebates received  
30 from the participants.

33. The system of claim 1 wherein the loyalty vehicles further comprise direct member  
incentives, and wherein the direct incentives comprise values which are available for at  
least partial payment of member transactions according to the specifications of the  
35 participants.

34. The system of claim 33 wherein the specifications of the participants comprise  
5 limitations on the subject or the location of member transactions.

35. The system of claim 1 wherein the program causes to processor further to:  
a) identify member transactions at the participants, and  
b) request rebates from the participants according to the identified member  
10 transactions.

36. The system of claim 1 wherein identification of member transactions further  
comprises identifying the identities of goods and services purchased, and wherein the  
processors determine rebates due to vary in dependence on the identities of the goods and  
15 services purchased.

38. The system of claim 21 wherein the loyalty vehicles comprise at least one investment  
fund for the benefit of at least one member, wherein the investment fund includes  
securities.  
20

39. The system of claim 22 wherein the securities comprise the publicly traded securities  
of at least one participant.

40. A computer system for incentivizing members of a consumer-loyalty program  
25 comprising:

a processor,  
a database accessible to the processor storing information representing:  
(i) members of the program including member-identifying information for  
each member, (ii) participants in the program that seek to incentivize  
30 members, and (iii) member transactions of interest to the participants, and,  
a computer-readable memory accessible to the processor, wherein the memory  
comprises data and programs for causing the processor to:  
a) receive and store in the database transaction-identification  
35 information identifying member transactions of interest to at least one  
participant, wherein transactions made by members are identified in  
cooperation with a financial network and in dependence on the member-  
identifying information provided during the transactions,

5           b)     receive and store incentive information that represents incentives for the members due from the participants which are determined in dependence on the stored transaction-identification information, and

          c)     allocate and store the incentive allocation information that represents allocation of member incentives among at least one of one or more loyalty vehicles for the benefit of the members,

10       whereby the members are incentivized to perform further transactions of interest thereby enhancing consumer loyalty.

41. The system of claim 40 wherein the loyalty vehicles comprise a first and a second loyalty vehicle, and wherein incentive allocation further comprises allocating incentives  
15       between the first loyalty vehicle and the second loyalty vehicle.

42. The system of claim 40 wherein the financial network further processes payment by credit card.

20       43. The system of claim 40 wherein identification of member transactions further comprises identifying values of the member transactions.

44. The system of claim 40 wherein member transactions comprise purchasing goods or services, and wherein identification of member transactions further comprises identifying  
25       the purchased goods and services.

45. The system of claim 40 wherein incentives comprise rebates, and wherein the rebates received vary in dependence on both the total transaction value and on the identities of the  
30       goods and services purchased.

46. The system of claim 40 wherein the participants are merchants, manufacturers, or providers of payment services to the members.

35       47. The system of claim 40 wherein the program further causes the processor to receive and store member registration information for registering new members and to exchange new-member identifying information with the financial network.

48. The system of claim 47 wherein new member registration further comprises issuing  
5 cards which can be processed by a financial network for providing at least partial payment  
for member transactions.

49. The system of claim 48 wherein the payment comprises values of direct incentives.

10 50. The system of claim 40 wherein the program further causes the processor to transmit  
information to the participants representing incentives due from the participants, according  
to which the participants make the incentive-due values available for allocation.

15 51. The system of claim 40 wherein incentive-due values are allocated to at least one  
loyalty vehicle providing for at least partial payment for member transactions.

52. The system of claim 40 wherein incentive-due values are allocated to at least one  
loyalty vehicle comprising an investment having securities fund comprising securities.

20 53. The system of claim 52 wherein the securities comprise the publicly traded securities  
of at least one participant.

25 54. The system of claim 40 wherein incentive-due values are further allocated to at least  
one loyalty vehicle providing for at least partial payment for member transactions

55. The system of claim 51 wherein the program further causes the processor to receive  
information indicating that the determined incentives have been made available and  
allocated for the benefit of the members.

30 56. The system of claim 40 wherein the member-identifying information is provided  
during member transactions from portable-member-identification devices, each member  
having an identification device carrying that member's identifying information.

35 57. The system of claim 56 wherein the identification devices in cooperation with the  
financial network provide for at least partial payment of member transactions.

58. The system of claim 56 wherein the identification devices comprise loyalty-program  
5 member cards, or credit cards, or debit cards, or store-issued credit cards, or stored-value  
cards.

59. The system of claim 58 wherein the loyalty-program-member cards in cooperation with  
the financial network cause presentation of at least one message during the transaction  
10 having indicia indicating that the member transaction has been identified.

60. The system of claim 40 wherein the program further causes the processor to provide to  
members their status in the loyalty program.

15 61. The system of claim 40 wherein the stored participant information further comprises  
participant incentive-allocation-instruction information, and wherein the program further  
causes the processor to allocate and store incentive allocation information at least in  
dependence on the stored incentive-allocation-instruction information.

20 62. The system of claim 40 wherein the program allocates determined incentives in  
dependence on at least allocation-instruction data received from a member for that  
member's incentives.

25 63. The system of claim 40 wherein incentive amounts due are determined as incentive  
percentages of total member transaction values, and wherein the incentive percentages are  
provided by the participants.

64. The system of claim 40 wherein the stored member-transactions information  
comprises identities of goods and services purchased by the member, and wherein  
30 incentive amounts due are determined variably in dependence on the identities of the  
goods and services.

65. A computer system incentivizing members of a consumer-loyalty program comprising:  
a processor,  
35 a database accessible to the processor storing information representing:  
(i) members of the program, (ii) participants in the program that seek to  
incentivize members, and (iii) member transactions of interest to the  
participants, and,



a computer-readable memory accessible to the processor, wherein the memory  
5 comprises data and programs for causing the processor to:

- a) receive and store in the database transaction-identification  
information identifying member transactions of interest to at least one  
participant, wherein the transaction-identification information is received  
from electronic payment devices that members employ for transactions,
- 10 b) receive and store incentive information that represents incentives for  
the members due from the participants which are determined in dependence  
on the stored transaction-identification information, and
- c) allocate and store the incentive allocation information that  
represents allocation of member incentives among at least one of one or  
15 more loyalty vehicles for the benefit of the members,

whereby the members are incentivized to perform further transactions of interest  
thereby enhancing consumer loyalty.

- 20 66. The system of claim 65 wherein the electronic payment means comprise a credit card,  
or a debit card, or an electronic check, or an amount of electronic cash.

67. A computer system incentivizing members of a consumer-loyalty program comprising:

a processor,

25 a database accessible to the processor storing information representing:

- (i) members, (ii) participants in the program that seek to incentivize  
members, and (iii) member transactions of interest to the participants, and,

a computer-readable memory accessible to the processor, wherein the memory  
comprises data and programs for causing the processor to:

- 30 a) receive and store in the database transaction-identification  
information identifying member transactions of interest to at least one  
participant,
- b) receive and store incentive information that represents incentives for  
the members due from the participants which are determined in dependence  
35 on the stored transaction-identification information, and

c) allocate and store the incentive allocation information that  
5 represents allocation of member incentives among at least of one or more  
loyalty vehicles for the benefit of the members,  
whereby the members are incentivized to perform further transactions of interest  
thereby enhancing consumer loyalty.

10 68. The system of claim 67 wherein the transaction-identifying information is received  
from at least one participant.

69. The system of claim 67 wherein the loyalty vehicles comprise a first and a second  
15 loyalty vehicle, and wherein incentive allocation further comprises allocating incentives  
between the first loyalty vehicle and the second loyalty vehicle.

70. The system of claim 67 wherein the financial network further processes payment by  
credit card.

20 71. The system of claim 67 wherein identification of member transactions further  
comprises identifying values of the member transactions.

72. The system of claim 67 wherein member transactions comprise purchasing goods or  
25 services, and wherein identification of member transactions further comprises identifying  
the purchased goods and services.

73. The system of claim 67 further comprising member identification devices for  
providing identifying information during transactions.

30 74. The system of claim 73 wherein member identification devices do not have a payment  
function, and wherein the financial network does not authorize payment by member  
identification devices when member identification devices are presented during member  
transactions at participants.

35 75. The system of claim 74 wherein the financial network further transmits messages to  
locations where members have presented member identification devices, and wherein the

transmitted messages include indicia indicating that the member transactions have been  
5 successfully identified.

76. The system of claim 73 wherein member identification devices have a payment  
function, and wherein the financial network authorizes at least partial payment by member  
identification devices when member identification devices are presented during member  
10 transactions.

77. The system of claim 76 wherein the member identification devices comprise a credit  
card, or a debit card, or a store-issued credit card, or a stored-value card.

15 78. The system of claim 73 wherein identification devices are issued by at least one bank  
that is a participant, and wherein the bank determines an incentive amount based on total  
transaction values made using the bank's identification devices.

79. The system of claim 67 wherein incentives comprise rebates, and wherein the rebates  
20 received vary in dependence on both the total transaction value and on the identities of the  
goods and services purchased.

80. The system of claim 67 wherein the participants are merchants, manufacturers, or  
providers of payment services to the members.

25 81. The system of claim 67 wherein the loyalty vehicles further comprise direct member  
incentives, and wherein the direct incentives comprise values which are available for at  
least partial payment of member transactions according to the instructions of the  
participants.

30 82. The system of claim 67 wherein the program causes to processor further to:  
a) identify member transactions at the participants, and  
b) request rebates from the participants according to the identified member  
transactions.

35 83. The system of claim 67 wherein the identifying of member transactions further  
comprises identifying the identities of goods and services purchased, and wherein the

processors determine rebates due to vary in dependence on the identities of the goods and  
5 services purchased.

84. The system of claim 67 wherein a member transaction performed at participant is of  
interest to the participant.

10 85. The system of claim 67 wherein a member transaction for participant goods or  
participant services is of interest to the participant.

86. The system of claim 67 wherein the incentives comprise rebates.

15 87. The system of claim 67 wherein the stored transaction-identifying information  
includes transaction total values and identities of transaction goods or services, and  
wherein incentives are determined further in dependence on the total transaction values or  
on the identities of the goods and services purchased.

20 88. A method of incentivizing members of a consumer loyalty program comprising:  
a) identifying member transactions that are of interest to at least one of one or  
more program participants, wherein the participants seek to incentivize further  
member transactions, and wherein transactions made by a member are identified in  
25 dependence on identifying information provided by the member during the  
transactions,  
b) receiving incentives for the members due from the participants determined  
in dependence on the identified transactions, and  
c) allocating the determined incentives among at least one of one or more  
30 loyalty vehicles for the benefit of the members,

whereby the members are incentivized to perform further transactions of interest thereby  
enhancing consumer loyalty.

35 89. The method of claim 88 further comprising a step of determining incentives in  
dependence also on instructions received from the participants.

90. The method of claim 88 wherein the loyalty vehicles comprise a first and a second  
5 loyalty vehicle, and wherein the step of allocating further comprises allocating incentives  
between the first loyalty vehicle and the second loyalty vehicle.

91. The method of claim 88 wherein the step of identifying member transactions further  
comprises identifying values of the member transactions.

10

92. The method of claim 91 wherein incentive amounts are determined in dependence on  
transaction values and on the identities of goods and services included in the transaction.

93. The method of claim 92 wherein the transaction values are values of the participant  
15 goods or the participant services.

94. The method of claim 88 wherein member transactions comprise purchasing goods or  
services, and wherein the step of identifying member transactions further comprises  
identifying the purchased goods and services.

20

95. The method of claim 88 wherein the participants are merchants, or manufacturers, or  
suppliers, or providers of payment services, or providers of financial products.

96. The method of claim 88 wherein the members are individual consumers.

25

97. The method of claim 88 wherein a member transaction that is performed at a  
participant is of interest to the participant.

98. The method of claim 88 wherein a member transaction the subject of which comprises  
30 participant goods or participant services is of interest to the participant.

99. The method of claim 98 wherein the step of identifying member transactions further  
comprises identifying the participant goods or participant services included in the  
35 transactions.

100. The method of claim 99 wherein the incentives are determined in dependence on  
5 transaction values and the identities of the participant goods or on participant services  
included in the transaction.

101. The method of claim 100 wherein the transaction values are values of the participant  
goods or the participant services.

10

102. The method of claim 88 wherein received incentive amounts are determined at least  
in part as percentages of values of member transactions.

103. The method of claim 88 wherein at least one loyalty vehicle further comprises an  
15 investment fund including publicly-traded securities of at least one participant, and  
wherein the securities are purchased using values derived from incentives received from  
the participants.

104. The method of claim 103 wherein the derived values comprise an exchange of  
20 incentive values for monetary values.

105. The method of claim 88 wherein the information identifying member transaction is  
provided in cooperation with a financial network.

25

106. The method of claim 105 wherein the financial network further processes payment  
by credit card.

107. The method of claim 105 wherein the identifying information is provided by member  
30 identification devices presented by members during transactions.

108. The method of claim 107 wherein member identification devices do not have a  
payment function, and wherein the financial network does not authorize payment by  
member identification devices when member identification devices are presented during  
35 member transactions at participants.

109. The method of claim 107 wherein the member identifying devices in cooperation with  
5 the financial network cause transmission of at least one message during a member transaction having indicia indicating that the member transaction has been identified.

110. The method of claim 109 wherein the indicia comprise credit-card-authorization-declined indicia, or debit-card-approval-declined indicia, or credit-card-pseudo-declined  
10 indicia, or debit-card-pseudo-declined indicia.

111. The method of claim 105 further comprising a step of receiving new-member registration information for registering new member of the loyalty program.

15 112. The method of claim 111 wherein new member registration further comprises a step of issuing member identification device that can be processed by the financial network for providing at least partial payment for member transactions.

113. The method of claim 112 wherein payment comprises values of direct incentives.  
20

114. The method of claim 112 wherein identification devices are issued by at least one bank that is a participant, and wherein the bank determines an incentive amount based on total transaction values made using the bank's identification devices.

25 115. The method of claim 88 wherein at least one loyalty vehicle further comprises direct member incentives that are available for member use in at least partial payment of at least one member transaction.

116. The method of claim 115 wherein member use of direct member incentives is  
30 according to instructions received from the participant.

117. The method of claim 115 comprising the additional steps of:  
issuing identification devices that can be processed by the financial network, and  
processing the identification device to provide at least partial payment for member  
35 transactions from the values of the direct incentives.

118. The method of claim 88 comprising the additional steps of:

issuing identification devices to members that can be processed by the financial  
5 network, and  
processing the identification device to provide at least partial payment for member  
transactions from the values of the direct incentives.

119. The method of claim 118 wherein the incentives comprise rebates.  
10

120. The method of claim 88 further comprising the step of requesting incentives values  
that have been determined to be due the participants for the benefit of the members

121. The method of claim 120 wherein the incentives comprise rebate values.  
15

122. The method of claim 88 wherein identifying information is derived from biometric  
data scanned from a member during a transaction.

123. The method of claim 88 wherein identifying information is provided during member  
20 transactions from portable-member-identification devices, each member having an  
identification device carrying that member's identifying information.

124. The method of claim 123 wherein the identifying devices comprises loyalty-program  
25 member cards, or credit cards, or debit cards, or store-issued credit cards, or stored-value  
cards.

125. A computer-implemented method for incentivizing members of a consumer-loyalty  
program comprising:

30 a) receiving and storing in a database transaction-identification information  
identifying member transactions of interest to at least one participant,  
wherein the database is accessible to a processor and stores information  
representing: (i) members of the program including member-identifying  
information for each member, (ii) participants in the program that seek to  
35 incentivize members, and (iii) member transactions of interest to the  
participants, and



5            wherein transactions made by a member are identified in cooperation with a financial network and in dependence on the member-identifying information provided during the transactions,

          b)        receiving and storing incentive information that represents incentives for the members due from the participants which are determined in dependence on the stored transaction-identification information, and

10           c)        allocating and storing the incentive allocation information that represents allocation of member incentives among at least one of one or more loyalty vehicles for the benefit of the members,

          whereby the members are incentivized to perform further transactions of interest thereby enhancing consumer loyalty.

15

126. The method of claim 125 wherein the loyalty vehicles comprise a first and a second loyalty vehicle, and wherein the step of allocating further comprises allocating incentives between the first loyalty vehicle and the second loyalty vehicle.

20           127. The method of claim 125 wherein the financial network further processes payment by credit card.

          128. The method of claim 125 wherein the step of receiving transaction-identification information further comprises receiving values of the member transactions.

25

          129. The method of claim 125 wherein member transactions comprise purchasing goods or services, and wherein the step of receiving transaction-identification information further comprises receiving information identifying the purchased goods and services.

30           130. The method of claim 125 wherein incentives comprise rebates, and wherein the rebates received vary in dependence on both the total transaction value and on the identities of the goods and services purchased.

35           131. The method of claim 125 wherein the participants are merchants, manufacturers, or providers of payment services to the members.

132. The method of claim 125 further comprising a step of receiving and storing member  
5 registration information for registering new members and to exchange new-member  
identifying information with the financial network.

133. The method of claim 132 wherein new member registration further comprises issuing  
cards which can be processed by a financial network for providing at least partial payment  
10 for member transactions.

134. The method of claim 133 wherein the payment comprises values of direct incentives.

135. The method of claim 125 further comprising a step of transmitting information to the  
15 participants representing incentives due from the participants, according to which the  
participants make the incentive-due values available for allocation.

136. The method of claim 125 wherein incentive-due values are allocated to at least one  
20 loyalty vehicle providing for at least partial payment for member transactions.

137. The method of claim 125 wherein incentive-due values are allocated to at least one  
loyalty vehicle comprising an investment having securities fund comprising securities.

25 138. The method of claim 137 wherein the securities comprise the publicly traded  
securities of at least one participant.

139. The method of claim 125 wherein incentive-due values are further allocated to at  
least one loyalty vehicle providing for at least partial payment for member transactions  
30

140. The method of claim 136 further comprising the step of receiving information  
indicating that the determined incentives have been made available and allocated for the  
benefit of the members.

35 141. The method of claim 125 wherein the member-identifying information is provided  
during member transactions from portable-member-identification devices, each member  
having an identification device carrying that member's identifying information.

5     142. The method of claim 141 wherein the identification devices in cooperation with the financial network provide for at least partial payment of member transactions.

143. The method of claim 141 wherein the identification devices comprise loyalty-program member cards, or credit cards, or debit cards, or store-issued credit cards, or  
10    stored-value cards.

144. The method of claim 143 wherein the loyalty-program-member cards in cooperation with the financial network cause presentation of at least one message during the transaction having indicia indicating that the member transaction has been identified.

15    145. The method of claim 125 further comprising the step of providing to members their status in the loyalty program.

146. The method of claim 125 wherein the stored participant information further  
20    comprises participant incentive-allocation-instruction information, and wherein incentive allocation further comprises allocation at least in dependence on the stored incentive-allocation-instruction information.

147. The method of claim 125 wherein the determined incentives are allocated in  
25    dependence on at least allocation-instruction data received from a member for that member's incentives.

148. The method of claim 40 wherein the stored member-transactions information  
30    comprises identities of goods and services purchased by the member, and wherein incentive amounts due are determined variably in dependence on the identities of the goods and services.

149. The method of claim 125 wherein the stored member-transactions information  
35    comprises identities of goods and services purchased by the member, and wherein the incentive amounts due are determined variably in dependence on the identities of the goods and services.

150. A computer-implemented method for incentivizing members of a consumer-loyalty  
5 program comprising:

- a) receiving and storing in a database transaction-identification information  
identifying member transactions of interest to at least one participant,  
wherein the database is accessible to a processor and stores information  
representing: (i) members of the program including member-identifying  
10 information for each member, (ii) participants in the program that seek to  
incentivize members, and (iii) member transactions of interest to the  
participants, and  
wherein the transaction-identification information is received from  
electronic payment devices that members employ for transactions,  
15 b) receiving and storing incentive information that represents incentives for  
the members due from the participants which are determined in dependence on the  
stored transaction-identification information, and  
c) allocating and storing the incentive allocation information that represents  
20 allocation of member incentives among at least one of one of more loyalty vehicles  
for the benefit of the members,

whereby the members are incentivized to perform further transactions of interest thereby  
enhancing consumer loyalty.

25 151. The method of claim 150 wherein the electronic payment means comprise a credit  
card, or a debit card, or an electronic check, or an amount of electronic cash.

152. A computer-implemented method for incentivizing members of a consumer-loyalty  
program comprising:

- a) receiving from the participants and storing in a database transaction-  
identification information identifying member transactions of interest to at least  
one participant, wherein the database is accessible to a processor and stores  
information representing: (i) members of the program including member-  
35 identifying information for each member, (ii) participants in the program that seek  
to incentivize members, and (iii) member transactions of interest to the  
participants,

- 5           b)     receiving and storing incentive information that represents incentives for  
the members from the participants which are determined in dependence on at least  
the stored transaction-identification information, and
- c)     allocating and storing the incentive allocation information that represents  
allocation of member incentives among one of at least one loyalty vehicles for the  
use by the members,
- 10   whereby the members are incentivized to perform further transactions of interest to the  
participants thereby enhancing consumer loyalty.

153. The method of claim 152 wherein the transaction-identifying information is received  
15   from at least one participant.

154. The method of claim 152 wherein the loyalty vehicles comprise a first and a second  
loyalty vehicle, and wherein the step of allocating further comprises allocating incentives  
between the first loyalty vehicle and the second loyalty vehicle.

20   155. The method of claim 152 wherein the financial network further processes payment  
by credit card.

156. The method of claim 152 wherein the step of receiving transaction-identification  
25   information further comprises receiving values of the member transactions.

157. The method of claim 152 wherein member transactions comprise purchasing goods  
or services, and wherein the step of receiving transaction-identification information further  
comprises receiving information identifying the purchased goods and services.

30   158. The method of claim 152 further comprising member identification devices for  
providing identifying information during transactions.

159. The method of claim 158 wherein member identification devices do not have a  
35   payment function, and wherein the financial network does not authorize payment by  
member cards when member cards are presented during member transactions at  
participants.

160. The method of claim 74 wherein the financial network further transmits messages to  
5 locations where members have presented member identification devices, and wherein the  
transmitted messages include indicia indicating that the member transactions have been  
successfully identified.

161. The method of claim 158 wherein member identification devices have a payment  
10 function, and wherein the financial network authorizes at least partial payment by member  
identification devices when member identification devices are presented during member  
transactions.

162. The method of claim 161 wherein the member identification devices comprises a  
15 credit card, or a debit card, or a store-issued credit card, or a stored-value card.

163. The method of claim 158 wherein identification devices are issued by at least one  
bank that is a participant, and wherein the bank determines an incentive amount based on  
total transaction values made using the bank's identification devices.  
20

164. The method of claim 152 wherein incentives comprise rebates, and wherein the  
rebates received vary in dependence on both the total transaction value and on the  
identities of the goods and services purchased.

25 165. The method of claim 152 wherein the participants are merchants, manufacturers, or  
providers of payment services to the members.

166. The method of claim 152 wherein the loyalty vehicles further comprise direct  
member incentives wherein the direct incentives comprise values which are available for at  
30 least partial payment of member transactions according to the instructions of the  
participants.

167. The method of claim 152 wherein the further comprising the steps of:  
a) identifying member transactions at the participants, and  
35 b) requesting rebates from the participants according to the identified member  
transactions.

168. The method of claim 152 wherein the step of receiving transaction-identification  
5 information further comprises receiving information identifying the purchased goods and  
services, and further comprising a step of determining rebates due variably in dependence  
on the identities of the goods and services purchased.

169. The method of claim 152 wherein a member transaction performed at a participant is  
10 of interest to the participant.

170. The method of claim 152 wherein a member transaction for participant goods or  
participant services is of interest to the participant.

15 171. The method of claim 152 wherein the incentives comprise rebates.

172. The method of claim 152 wherein the stored transaction-identifying information  
includes transaction total value and identities of transaction goods or services, and further  
20 comprising a step of determining incentives rebates due variably in dependence on the  
identities of the goods and services purchased.

173. A program product comprising a computer-readable medium comprising program  
instructions for causing a processor to perform the method of claim 125.

25 174. A program product comprising a computer-readable medium comprising program  
instructions for causing a processor to perform the method of claim 152.

175. The system of claim 1 wherein the program further causes the processor to  
30 determine incentive amounts further in dependence on identified member transactions.

176. The system of claim 40 wherein the database further stores incentive-determining-  
instruction information for each participant, and wherein the program further causes the  
processor to determine and store incentive amounts further in dependence on identified  
35 member transactions and of the stored incentive-determining-instruction information.

177. The system of claim 67 wherein the database further stores incentive-determining-  
5 instruction information for each participant, and wherein the program further causes the  
processor to determine and store incentive amounts  
including incentive-determining-instruction information for each participant

178. The system of claim 1 wherein the loyalty program comprises a plurality of  
10 participants.

179. The system of claim 40 wherein the loyalty program comprises a plurality of  
participants.

15 180. The system of claim 67 wherein the loyalty program comprises a plurality of  
participants.

180. The method of claim 88 wherein the loyalty program comprises a plurality of  
participants.

20 181. The system of claim 1 wherein the loyalty program comprises a single participant.

182. The system of claim 40 wherein the loyalty program comprises a single participant.

25 183. The system of claim 67 wherein the loyalty program comprises a single participant.

184. The method of claim 88 wherein the loyalty program comprises a single participant.

185. The system of claim 1 wherein the financial network comprises the  
30 MASTERCARD® network, or the VISA® network.

186. The system of claim 1 wherein the loyalty vehicles comprise a first and a second  
loyalty vehicle, and wherein the step of allocation further comprises allocating incentives  
between the first loyalty vehicle and the second loyalty vehicle.

35



187. The method of claim 111 wherein new member registration further comprises  
5 receiving identifying information for a member identification device that can be processed  
by the financial network for providing at least partial payment for member transactions.

188. The method of claim 111 wherein new member registration further comprises  
receiving identifying information for a loyalty-program member card, or a credit card, or a  
10 debit card, or a store-issued credit card, or a stored-value card.

189. The method of claim 88 wherein the participant services further comprise transaction  
payment services.

15 190. The method of claim 88 wherein the loyalty vehicles further comprise an investment  
fund, and wherein the composition of the fund reflects at least in part the rebates received  
from the participants.

191. The method of claim 88 wherein the loyalty vehicles comprise at least one  
20 investment fund for the benefit of at least one member, wherein the investment fund  
includes securities.

192. The method of claim 191 wherein the securities comprise the publicly traded  
securities of at least one participant.

25 193. The method of claim 125 wherein the participant services further comprise  
transaction payment services.

30 194. The method of claim 125 wherein the loyalty vehicles further comprise an  
investment fund, and wherein the composition of the fund reflects at least in part the  
rebates received from the participants.

195. The method of claim 125 wherein the loyalty vehicles comprise at least one  
35 investment fund for the benefit of at least one member, wherein the investment fund  
includes securities.

196. The method of claim 195 wherein the securities comprise the publicly traded  
5 securities of at least one participant.

197. The method of claim 150 wherein the participant services further comprise  
transaction payment services.

10 198. The method of claim 150 wherein the loyalty vehicles further comprise an  
investment fund, and wherein the composition of the fund reflects at least in part the  
rebates received from the participants.

15 199. The method of claim 150 wherein the loyalty vehicles comprise at least one  
investment fund for the benefit of at least one member, wherein the investment fund  
includes securities.

20 200. The method of claim 199 wherein the securities comprise the publicly traded  
securities of at least one participant.

201. The method of claim 152 wherein the participant services further comprise  
transaction payment services.

25 202. The method of claim 152 wherein the loyalty vehicles further comprise an  
investment fund, and wherein the composition of the fund reflects at least in part the  
rebates received from the participants.

30 203. The method of claim 152 wherein the loyalty vehicles comprise at least one  
investment fund for the benefit of at least one member, wherein the investment fund  
includes securities.

204. The method of claim 203 wherein the securities comprise the publicly traded  
securities of at least one participant.

35 205. A method of incentivizing members of a consumer loyalty program comprising:

- 5 a) receiving new-member registration information for registering new member of the loyalty program,
- b) identifying member transactions that are of interest to at least one of one or more program participants, wherein the participants seek to incentivize further member transactions, and wherein transactions made by a member are identified in dependence on identifying information provided by the member during the transactions,
- 10 c) receiving incentives for the members due from the participants determined in dependence on the identified transactions, and
- d) allocating the determined incentives among at least one of one or more loyalty vehicles for the benefit of the members,
- 15 whereby the members are incentivized to perform further transactions of interest thereby enhancing consumer loyalty.

20 206. The system of claim 205 wherein a member transaction that is performed at a participant is of interest to the participant.

207. The system of claim 205 wherein a member transaction the subject of which comprises participant goods or participant services is of interest to the participant.

25 208. The method of claim 205 wherein the identifying information is provided by member identification devices presented by members during transactions.

30 209. The method of claim 208 wherein identification devices are issued by at least one bank that is a participant, and wherein the bank determines an incentive amount based on total transaction values made using the bank's identification devices.

35 210. The method of claim 208 wherein new member registration further comprises receiving identifying information for a member identification device of at least one member.

211. The method of claim 208 wherein new member registration further comprises a step  
5 of issuing at least one member identification device that can be processed by the financial  
network for providing at least partial payment for transactions of at least one member.

212. The method of claim 205 wherein new member registration further comprises  
receiving identifying information for a loyalty-program member card, or a credit card, or a  
10 debit card, or a store-issued credit card, or a stored-value card.

213. The method of claim 205 wherein new member registration further comprises issuing  
a loyalty-program member card, or a credit card, or a debit card, or a store-issued credit  
card, or a stored-value card, and wherein member identifying information comprises the  
15 account information for the issued card.

214. The method of claim 205 wherein the information identifying member transaction is  
provided in cooperation with a financial network.

20 215. The method of claim 214 wherein the financial network further processes payment  
by credit card.

216. The method of claim 214 wherein the identifying information is provided by member  
identification devices presented by members during transactions.

25

217. The method of claim 216 wherein member identification devices do not have a  
payment function, and wherein the financial network does not authorize payment by  
member identification devices when member identification devices are presented during  
member transactions at participants.

30

218. The method of claim 216 wherein the member identifying devices in cooperation with  
the financial network cause transmission of at least one message during a member  
transaction having indicia indicating that the member transaction has been identified.

35 219. The method of claim 218 wherein the indicia comprise credit-card-authorization-  
declined indicia, or debit-card-approval-declined indicia, or credit-card-pseudo-declined  
indicia, or debit-card-pseudo-declined indicia.

- 5 220. The method of claim 205 wherein at least one loyalty vehicle further comprises direct member incentives that are available for member use in at least partial payment of at least one member transaction.
221. The method of claim 205 wherein the participant services comprise transaction  
10 payment services.
222. The method of claim 205 wherein the loyalty vehicles further comprise an investment fund, and wherein the composition of the fund reflects at least in part the rebates received from the participants.  
15
223. The method of claim 205 wherein the loyalty vehicles comprise at least one investment fund for the benefit of at least one member, wherein the investment fund includes securities.
- 20 224. The method of claim 205 wherein the securities comprise the publicly traded securities of at least one participant.
225. The method of claim 205 wherein the loyalty vehicles comprise a first and a second loyalty vehicle, and wherein the step of allocating further comprises allocating incentives  
25 between the first loyalty vehicle and the second loyalty vehicle.
226. The method of claim 206 wherein the step of identifying member transactions further comprises identifying values of the member transactions.
- 30 227. The method of claim 207 wherein the participants are merchants, or manufacturers, or suppliers, or providers of payment services, or providers of financial products.
228. The method of claim 205 wherein the participants consist of one of more banks,
- 35 229. The method of claim 205 wherein received incentive amounts are determined at least in part as percentages of values of member transactions.

230. The method of claim 205 wherein the incentives comprise rebates.

5

231. The method of claim 205 further comprising the step of requesting incentives values that have been determined to be due the participants for the benefit of the members

232. The method of claim 231 wherein the incentives comprise rebate values.

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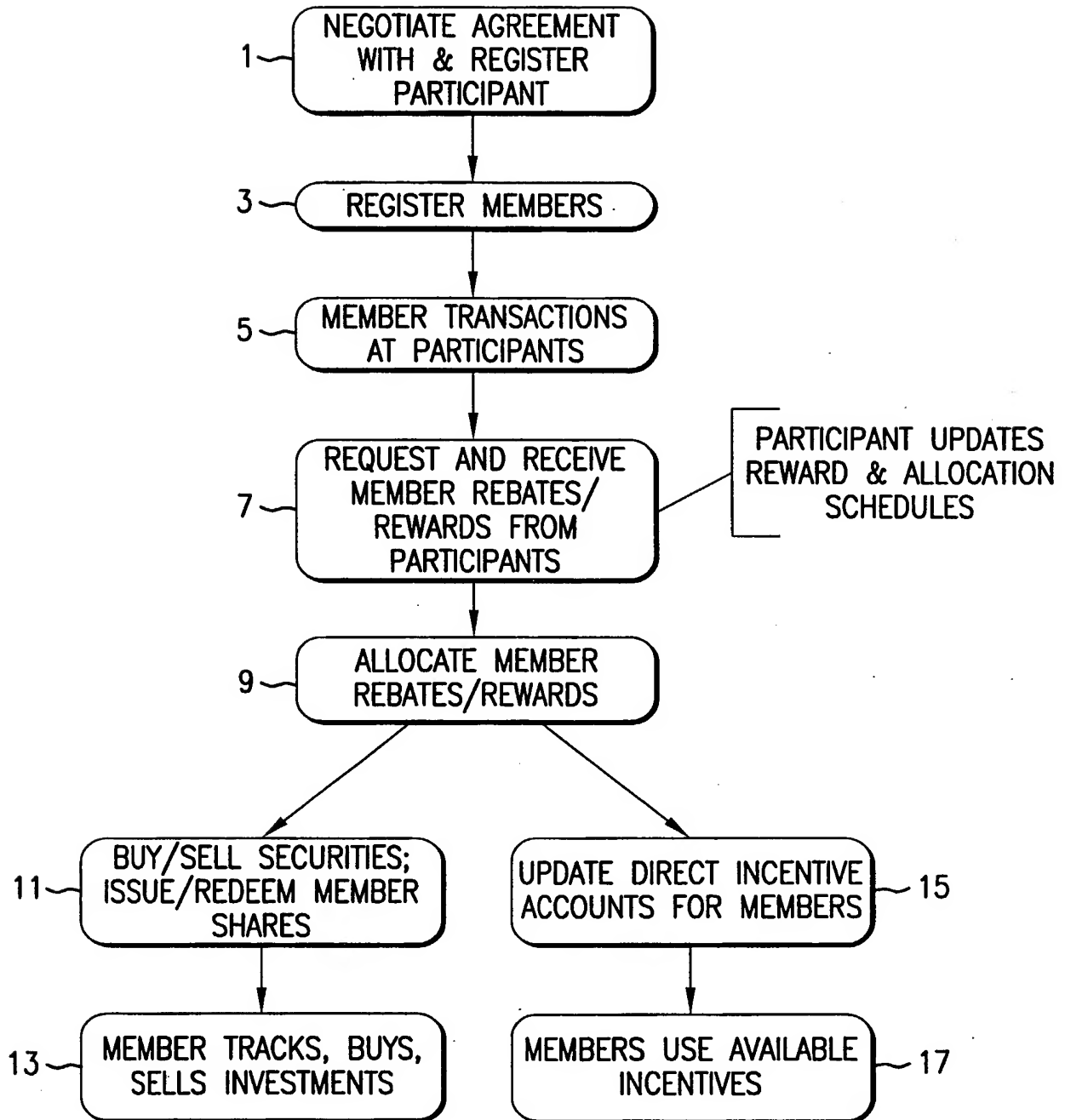


FIG. 1

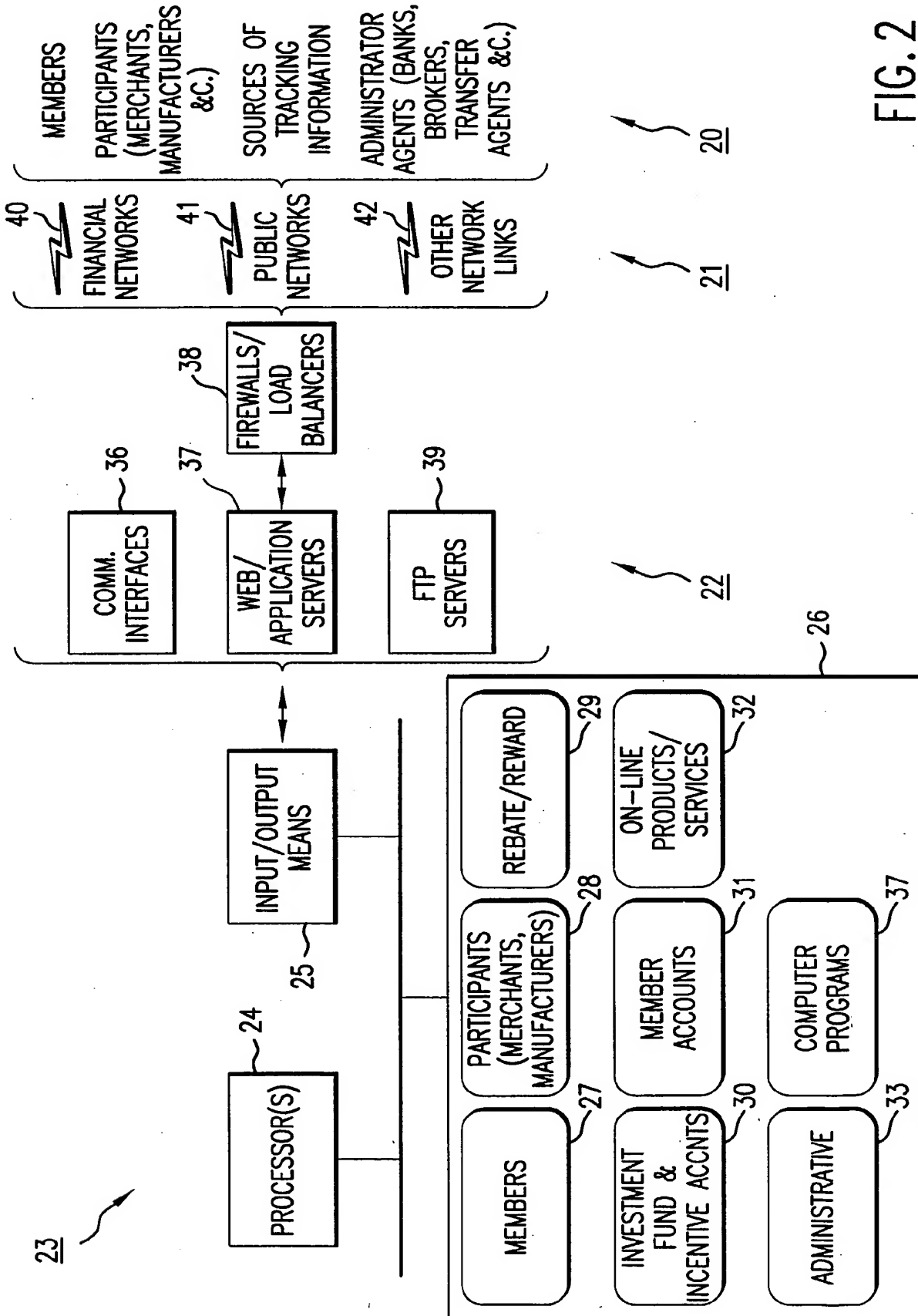
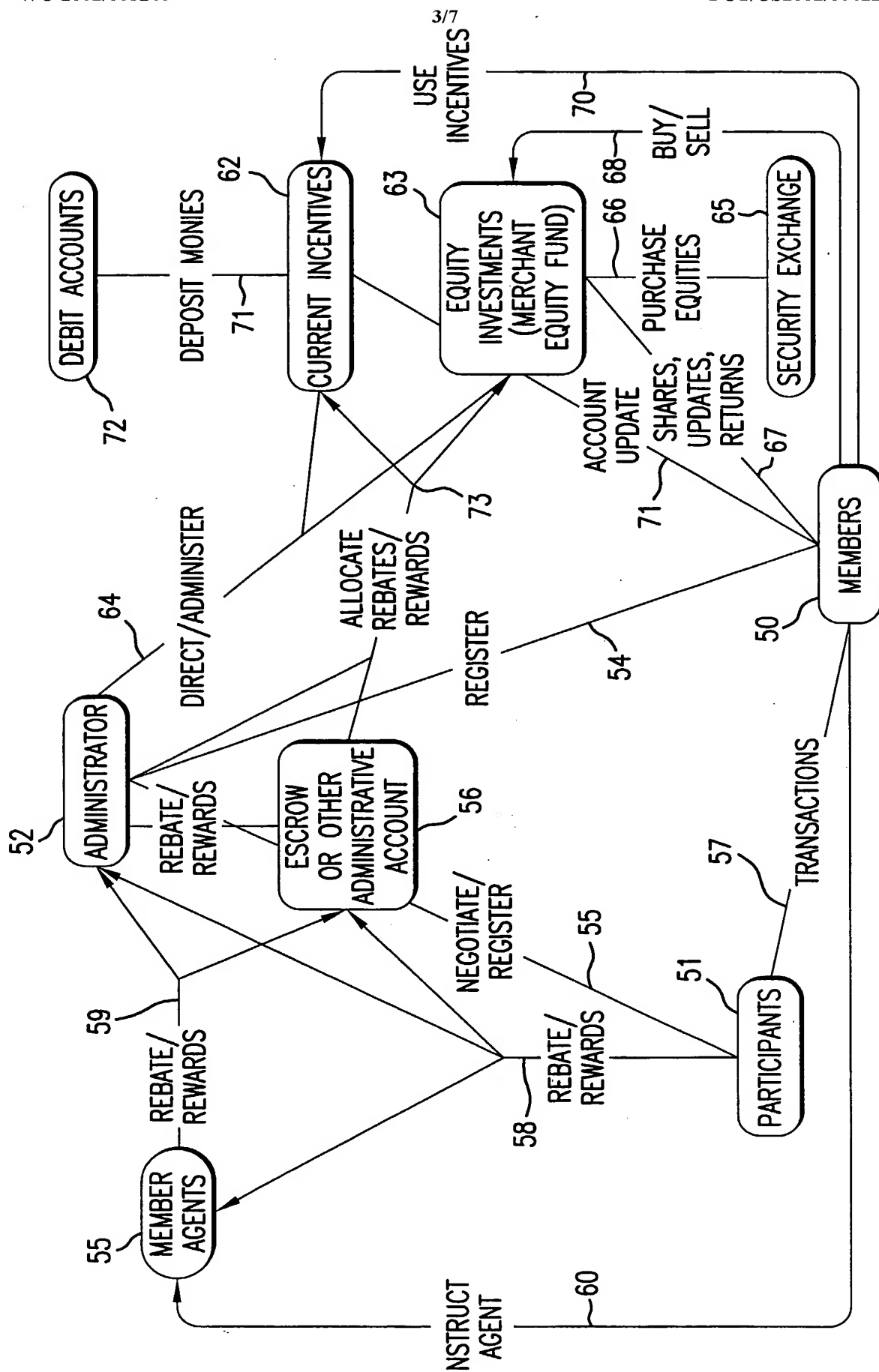


FIG. 2





**FIG. 3**

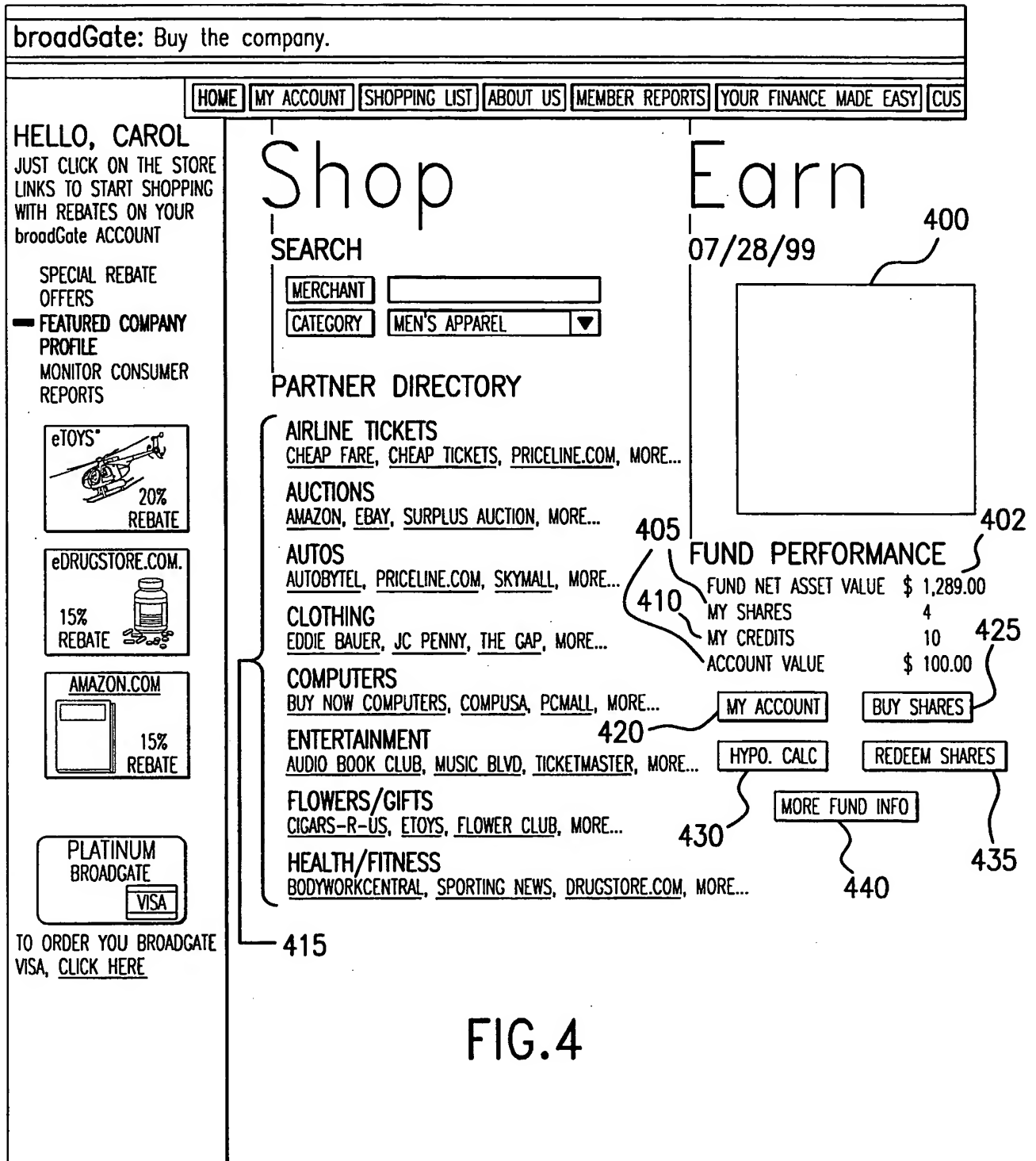


FIG.4

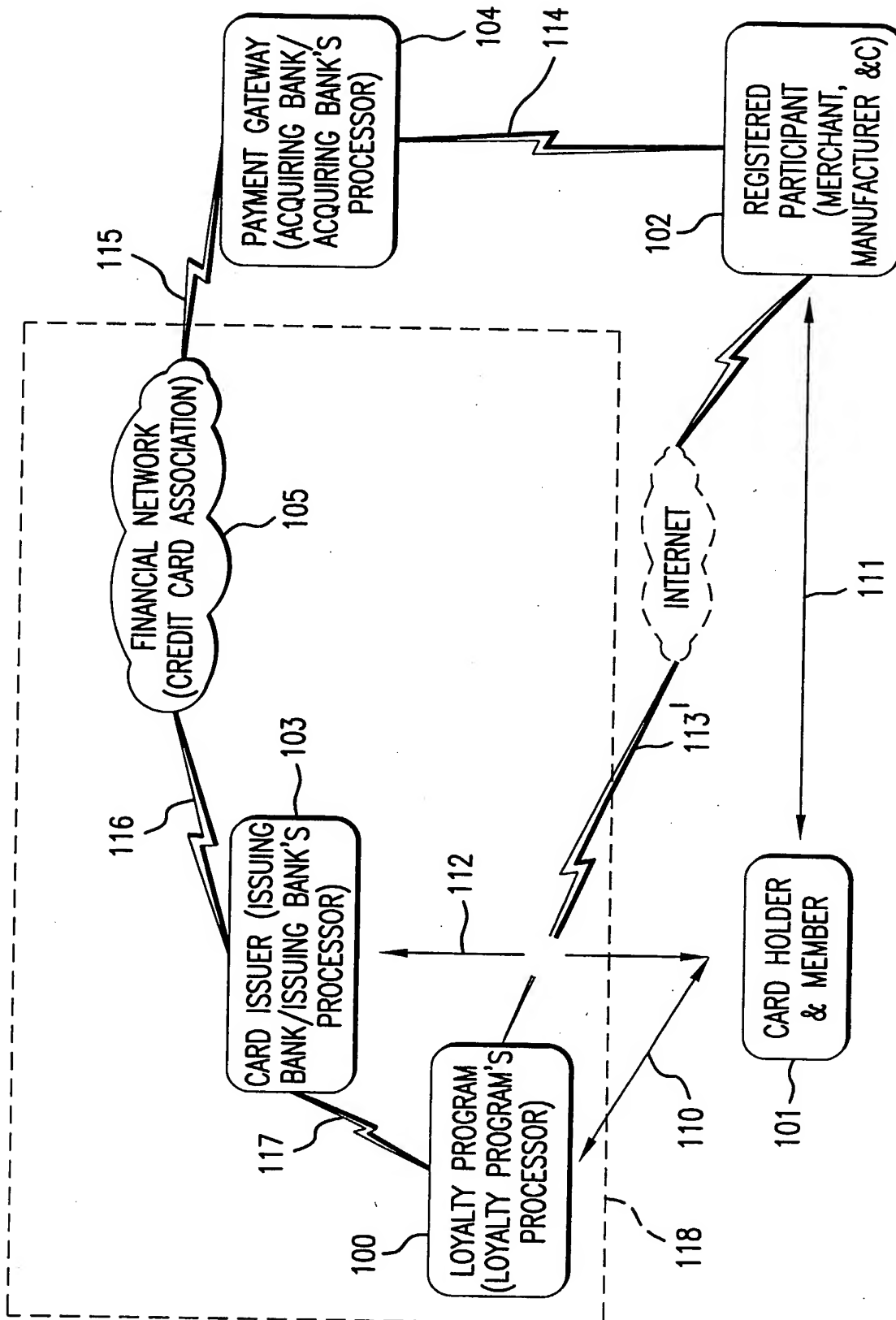


FIG. 5A

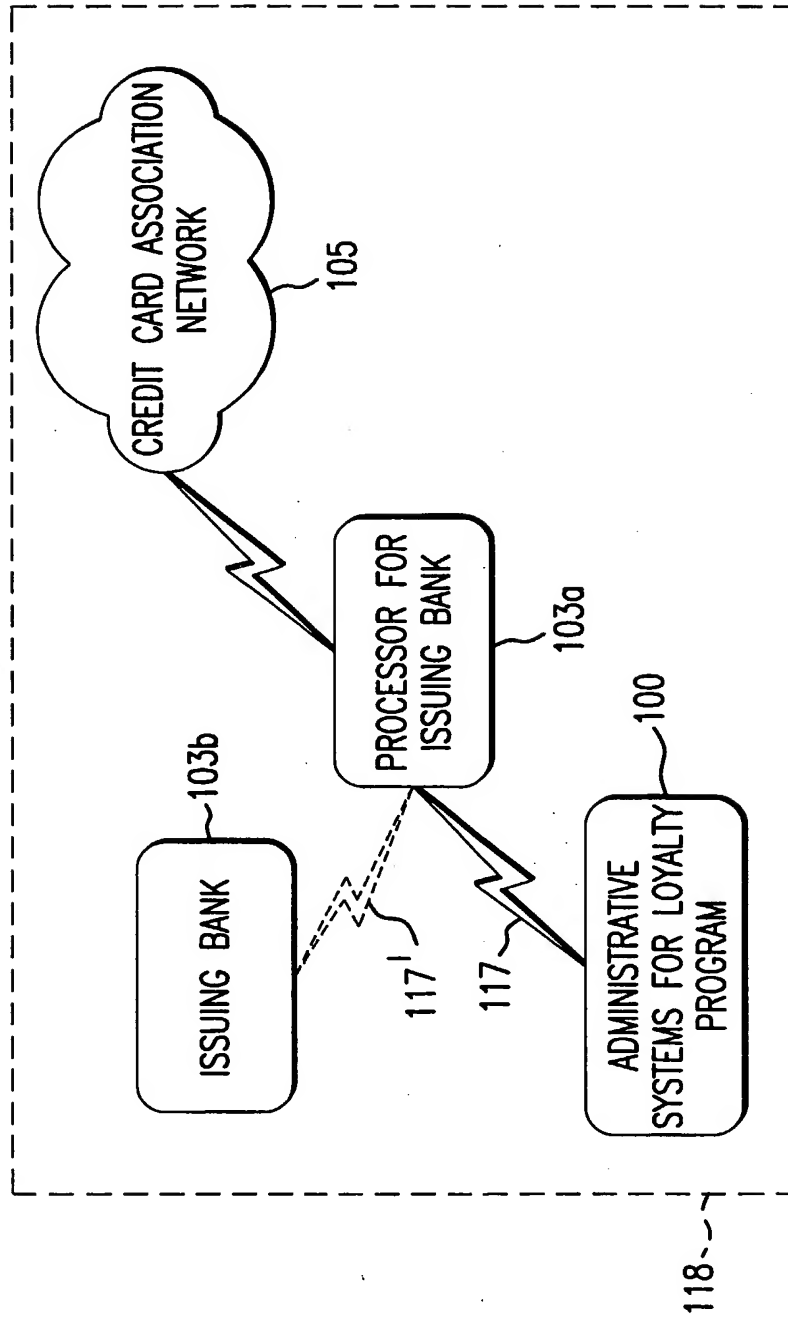


FIG. 5B

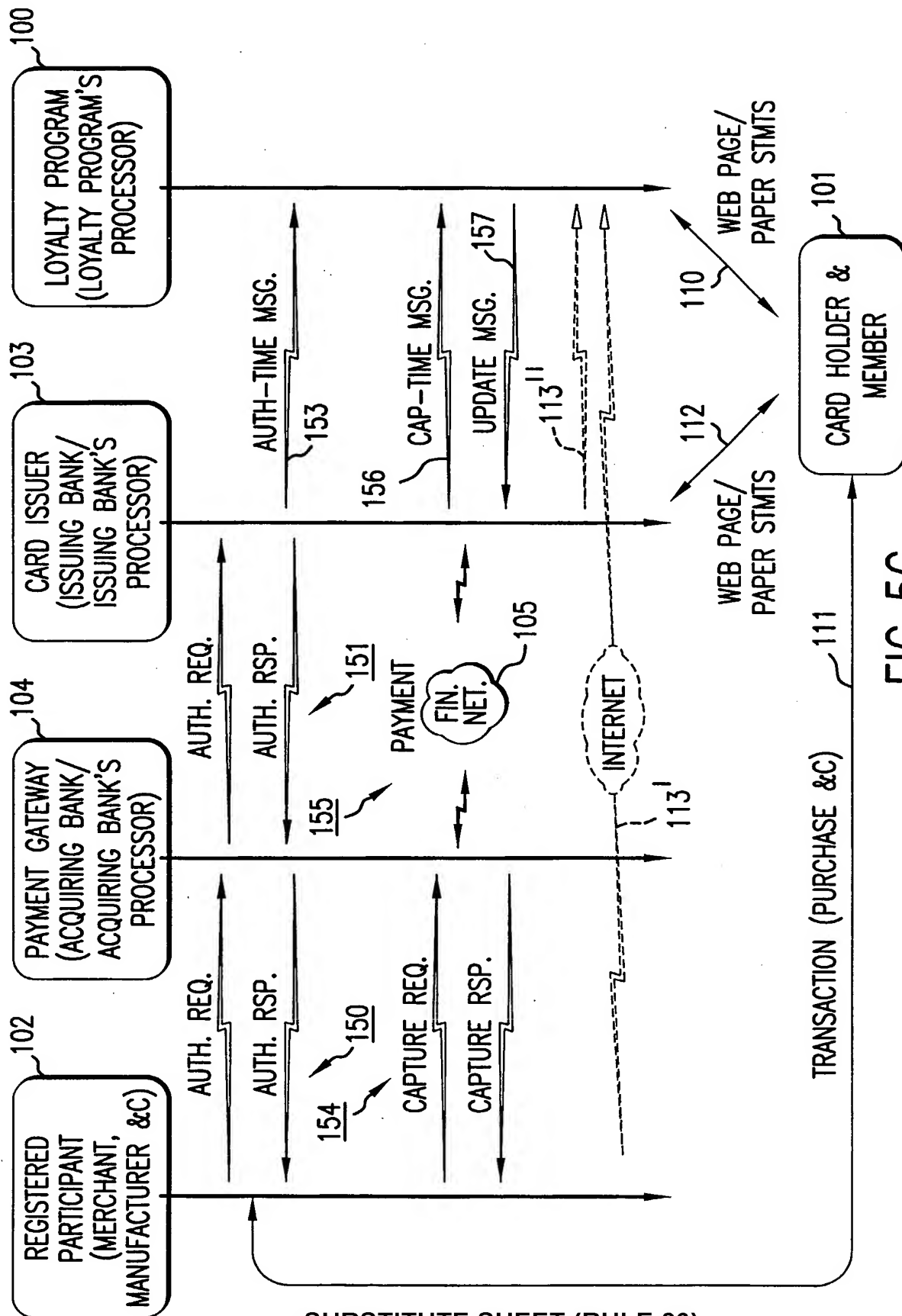


FIG. 5C

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/04222

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/60

US CL : 705/14

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/14, 26, 27, 37

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
customer, loyalty, investment, program, incentives, rebates, credit card, id card, direct incentives.

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,E	US 2002/0062253 A1 (DOSHI, JR. et al.) 23 May 2002 (23.05.2002); see abstract; page 3, paragraph 28.	1-232
A,E	US 2002/0082918 A1 (WARWICK) 27 June 2002 (27.06.2002); see abstract; page 1, paragraph 5.	1-232
A,E	US 2002/0082920 A1 (AUSTIN et al.) 27 June 2002 (27.06.2002); see abstract; page 1, paragraph 2.	1-232
X,P	US 6,243,688 B1 (KALINA) 05 June 2001 (05.06.2001); see abstract; column 2, lines 1-16.	1-232
A,E	WO 02/37327 A2 (SCHIRRI) 10 May 2002 (10.05.2002); see abstract.	1-232

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

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